THIS DRAFT FINDING OF NO SIGNIFICANT IMPACT AND ENVIRONMENTAL ASSESSMENT FOR

RELOCATION OF THE AL BLACK RECREATION AREA AT THE COCHITI DAM OUTLET WORKS
TO
PEÑA BLANCA
SANDOVAL COUNTY, NEW MEXICO

IS AVAILABLE FOR

PUBLIC REVIEW AND COMMENT FROM

AUGUST 1, 2003 THROUGH SEPTEMBER 2, 2003

PLEASE ADDRESS ALL CORRESPONDENCE TO:

U.S ARMY CORPS OF ENGINEERS
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U.S.ARMY CORPS OF ENGINEERS
ALBUQUERQUE DISTRICT

DRAFT

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AND
ENVIRONMENTAL ASSESSMENT

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August 2003

U.S.ARMY CORPS OF ENGINEERS
ALBUQUERQUE DISTRICT

DRAFT
FINDING OF NO SIGNIFICANT IMPACT

FOR

RELOCATION OF THE AL BLACK RECREATION AREA

AT THE COCHITI DAM OUTLET WORKS

TO

PEÑA BLANCA

SANDOVAL COUNTY, NEW MEXICO

Cochiti Dam and Lake (Project) are located north of Interstate 25 in Sandoval County between Bernalillo and Sante Fe, New Mexico. The Project was authorized for flood and sediment control in the upper Rio Grande Basin by the Flood Control Act of 1960 (Public Law 86-645). Secondary purposes include recreation and fish and wildlife habitat. The Pueblo de Cochiti (Pueblo) granted easements to the Corps for construction, operation, and maintenance of portions of the Project on their lands.

Various Pueblo/Corps agreements defined the use and management of the Project land owned by the Pueblo. The Corps would build public use facilities at various locations (including the Outlet Channel Area) and the Pueblo would operate and maintain these amenities. However, in an agreement dated June 12, 1984, the Pueblo transferred the operation and maintenance of the public facilities to the Corps. The site was renamed the Al Black Recreation Area.

On November 8, 2001, the Pueblo de Cochiti, Bureau of Indian Affairs, and the Corps agreed to modify the easement provisions for the operation of the Cochiti Dam Outlet Works/Al Black Recreation Area. Specifically, the recreation easement would be rescinded but the Corps would retain the original dam operation and maintenance easement. Public access to the site would no longer be allowed. All public-oriented facilities and other amenities that have no bearing on operation or maintenance of the Outlet Works would be removed.

Because the Corps and the Pueblo have agreed to close the Al Black Recreation Area, this action was considered the only feasible alternative. Five potential relocation (alternative) sites were investigated. The analysis determined the preferred site to be Middle Rio Grande Conservancy District property located on the Rio Grande near Peña Blanca, New Mexico.

There are no archeological sites or other cultural resources within either the existing Al Black Recreation Area or its proposed relocation site near Peña Blanca, New Mexico. The proposed project would have no impacts on the archeological resources of New Mexico.

The following additional elements of the local environment were considered in analyzing impacts from the relocation of the Al Black Recreation Area to Peña Blanca: physical environment (geology and soils), climate, socioeconomics and environmental justice, land uses, hydrology and water quality, air quality and noise, biological resources, endangered and protected species, recreation, wetlands and floodplains, Indian trust assets, noxious weeds, and hazardous and toxic waste. The impact analysis determined that proposed action would have no significant effects on these resources.

The proposed work would not affect waters of the United States regulated by Section 404 of the Clean Water Act (CWA); therefore a Section 404 Department of the Army (DA) permit would not be needed for the project. Construction of the proposed fishing pier in the Rio Grande at the Peña Blanca recreation site would not require a DA permit as these waters are not navigable and therefore not regulated by Section 10 of the Rivers and Harbors Act of 1899. Although the construction of the recreation area at Peña Blanca would occur in a floodplain, the work would not significantly alter any natural feature or use of the area. Therefore, the planned action is consistent with Executive Order 11988 (Floodplain Management). The proposed work complies with Executive Order 11990 (Protection of Wetlands) as no wetlands are within the project sites.

The establishment of the recreation area at Peña Blanca is contingent on Congressional approval of this action. This Environmental Assessment is, therefore, the decision document to support Congressional authorization and funding for this action.

The planned action has been fully coordinated with Federal, state, tribal, and local governments with jurisdiction over the ecological, cultural, and hydrological resources of the project area. Based upon these factors and others discussed in detail in the Environmental Assessment, the planned action would not have a significant effect on the human environment. Therefore, an Environmental Impact Statement will not be prepared for the relocation of the Al Black Recreation Area at the Cochiti Lake Dam Outlet Works to Pena Blanca in Sandoval County, New Mexico.

_____ _____

Date

Dana R. Hurst
Lieutenant Colonel, US Army
District Engineer

DRAFT

FINDING OF NO SIGNIFICANT IMPACT AND ENVIRONMENTAL ASSESSMENT FOR

RELOCATION OF THE AL BLACK RECREATION AREA AT THE COCHITI DAM OUTLET WORKS TO PEÑA BLANCA, SANDOVAL COUNTY, NEW MEXICO

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U.S. ARMY CORPS OF ENGINEERS
ALBUQUERQUE DISTRICT

DRAFT ENVIRONMENTAL ASSESSMENT

FOR

RELOCATION OF THE AL BLACK RECREATION AREA

AT THE COCHITI LAKE DAM OUTLET WORKS

TO

PENA BLANCA

SANDOVAL COUNTY, NEW MEXICO

SECTION 1

BACKGROUND, PURPOSE AND NEED FOR ACTION

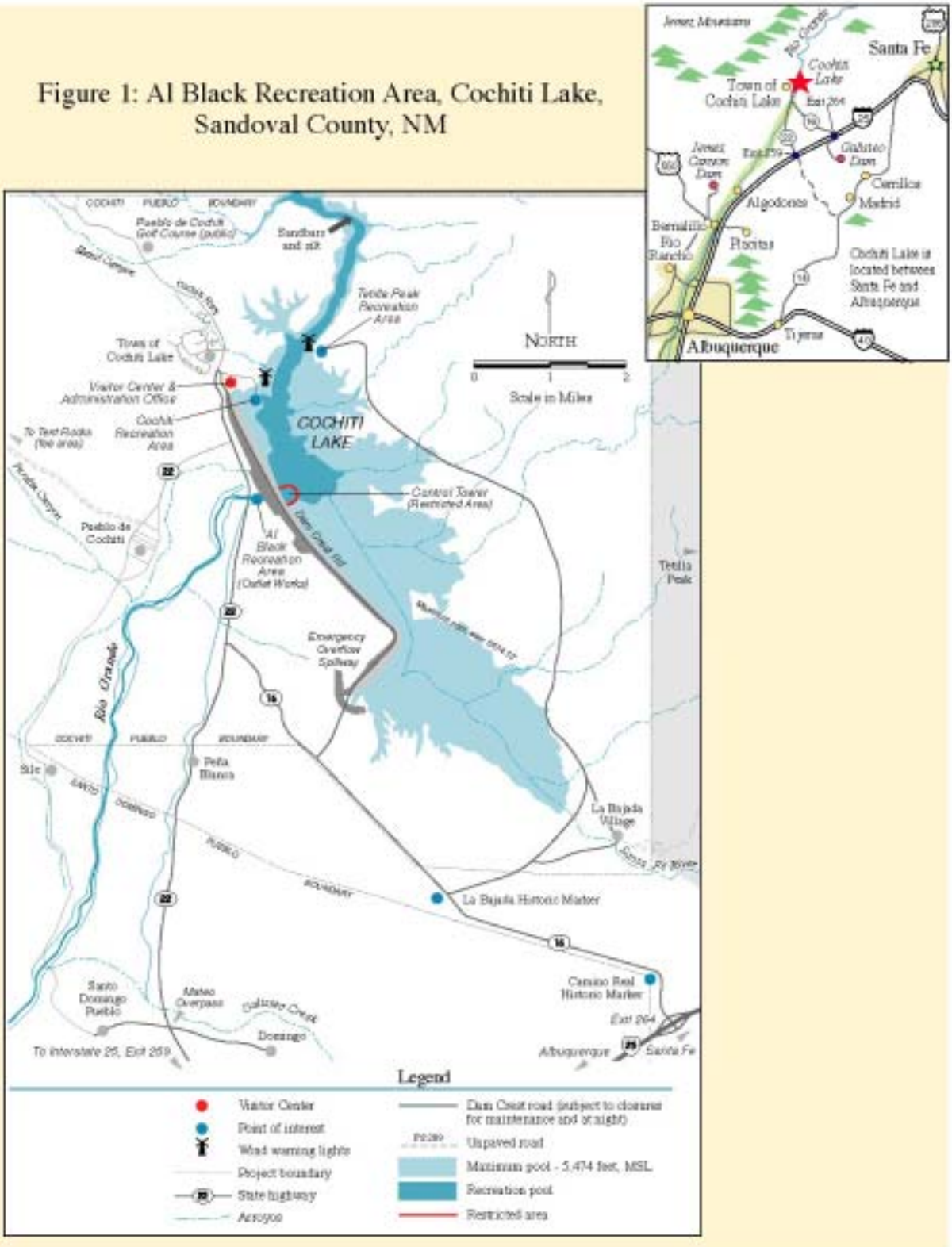
1.01 INTRODUCTION

This Environmental Assessment (EA) discusses the closure and relocation of the Al Black Recreation Area at the Cochiti Dam Outlet Works Area. The public recreation area is managed by the Albuquerque District of the U.S. Army Corps of Engineers (Corps) on lands held in trust for the Pueblo de Cochiti (Pueblo). The site is located between the west side (face) of the dam and NM Highway 22 just south of the Cochiti Recreation Area (see Figure 1). This EA was prepared in compliance with the National Environmental Policy Act of 1969 (NEPA), as amended (42 U.S.C. 4321 et seq.), to determine the need for an Environmental Impact Statement for the planned action.

1.02 AUTHORIZATION AND HISTORY OF THE PROJECT

The Cochiti Dam and Lake (Project) are located north of Interstate 25 in Sandoval County between Bernalillo and Sante Fe, New Mexico. The dam can be accessed from New Mexico Highways 16 and 22 from the interstate (see Figure 1). The Project was authorized for flood and sediment control in the upper Rio Grand Basin by the Flood Control Act of 1960 (Public Law 86-645). Secondary purposes included recreation and fish and wildlife habitat. In a November 16, 1965 Memorandum of Understanding) MOU, the Pueblo granted a perpetual easement to the Corps for construction, operation,

Figure 1: Al Black Recreation Area, Cochiti Lake, Sandoval County, NM



and maintenance of portions of the Project on 4,069 acres of Pueblo lands. An additional Service (8,236 acres); Atomic Energy Commission (345 acres); National Park Service (361 acres); University of New Mexico (540 acres); and private concerns (139 acres) (USACE 1996).

Construction of the Project was initiated in February 1965. The rolled-earthfill dam is approximately 5.4 miles long with a maximum height of 251 feet above the streambed and extends in a generally east-west line across the Rio Grande to a point two miles east of the river and then south across the Cañada de Cochiti and Sante Fe River. The controlled outlet works are located on the Rio Grande and an uncontrolled spillway is located on the south side of the Sante Fe River. A conveyance channel that connects the Rio Grande and Sante Fe pools impounded by the dam allows flows into the reservoir proper from the Sante Fe River during periods of normal storage. The channel also transports backflow of water in the Rio Grande pool to the spillway during periods of high storage.

In 1964, Public Law 88-293 also authorized the establishment of a permanent pool of approximately 50,000 acre feet (1,200 surface acres) for recreation and fish and the conservation and development of wildlife resources using water from the San Juan-Chama Project. Initial storage of this pool was attained in December 1975, four months after Project completion. Operation of the dam is conducted in accordance with procedures defined in the Flood Control Act and in coordination with the Rio Grande Compact for operation of other flood control and water supply storage in the Rio Grande watershed. Regulated releases of snow pack runoff are made during the period from April 1 through June 30 of each year. Flood waters may also be retained in the reservoir until November 1, provided that at least 212,000 acre feet of storage is available in the reservoir, river inflows are less than 1,500 cfs, and all flood control storage (442,000 acre feet) is available by March 31 of the following year. Total storage capacity of the reservoir is 724,000 acre-feet at maximum pool elevation.

In addition to providing flood and sediment control, the dam also diverts river water to two pre-existing irrigation canals along the Rio Grande, replacing a diversion dam constructed by the Middle Rio Grande Conservancy District in 1930 about one mile below White Rock Canyon. The Sile Main Canal parallels the river on the west side and serves agricultural lands at the Pueblo (immediately below the dam), the town of Sile, and the Santo Domingo Pueblo. The Cochiti East Side Main Canal also provides irrigation water to the two pueblos and serves farmland at the town of Peña Blanca on the east side of the Rio Grande.

The Pueblo/Corps MOU dated December 17, 1975 defined the use and management of the Project land owned by the Pueblo. The Corps would build public use facilities at various locations within the Project boundaries and the Pueblo would operate and maintain these amenities. This included service roads and public parking areas and access and a comfort station for the Outlet Channel Area. In the May 25, 1982

amendment to the 1975 Corps/Pueblo MOU, the Pueblo transferred the operation and maintenance of all public use areas except at the Outlet Channel Area to the Corps. Subsequently, the June 12, 1984 amendment to the Pueblo/Corps MOU transferred the operation of the public facilities at the Outlet Channel Area to the Corps. In 1989 the site was renamed the Al Black Recreation Area.

1.03 DESCRIPTION OF THE AL BLACK RECREATION AREA

The Al Black Recreation Area encompasses approximately 8 acres of land on both sides of the stilling basin below the dam outlet from the base of the dam to NM Highway 22 (see Figure 2 and photos in Appendix D). Public access is gained by gravel roads on each side of the river from the highway. Fishing is allowed along the rock-armored shorelines of the Rio Grande in this area. Physical features of the facility on the north side of the river include a gravel parking lot with metal guardrails along the river; chain link fencing along the highway with a gate and recreation area sign; a universal access toilet with concrete parking pad; a cement sidewalk for universal access to fishing at the dam outlet; a cylindrical plastic slide for stocking fish; and a bronze memorial plaque embedded in concrete to the memory of Al Black. South bank features include a recreation area sign on the highway; a graveled parking lot with metal guardrail along the river; a public restroom; and a chain link fence with gate along the highway. Other permanent, non-recreational features at the site associated with operation of the dam include an emergency generating building and a stream gauge on the north side of the river with an aerial cable that crosses the channel to an anchor on the south bank. Vegetation is absent within the boundaries of the site except for a few non-native trees near the south bank parking lot.

1.04 PURPOSE AND NEED FOR THE ACTION

As expressed in a statement by the Pueblo de Cochiti, they are undertaking a community-wide restoration effort that involves the addition of community infrastructure and implementation of natural resource restoration work that would collectively provide the means for reintegration of family activities necessary to sustain the Pueblo's cultural and traditional integrity. These family-based activities are the conduit for passing traditions from one generation to the next and they have been affected over time by various circumstances. Closing the Al Black Recreation Area is a vital component of the Pueblo's community-wide restoration efforts as it is the first step toward reconciliation on the Pueblos' behalf for the many years of uses at the site that have been inconsistent with the historical and cultural nature of the area. The scope of this effort requires financial and physical resources beyond the current capabilities of the Pueblo. To accomplish the stated objectives, the Pueblo, together with the Corps and the Bureau of Indian Affairs (BIA), would seek the sympathy and understanding of the public with the purpose and need of the proposed community-wide restoration efforts. The primary goals include modifying the existing property easement and acquiring the necessary funding and Federal agency cooperation to restore the land.

The Pueblo, BIA, and the Corps entered into an agreement (hereinafter referred to as the "Agreement") on November 8, 2001, "…to institutionalize a process for continuing the parties' ongoing dialogue concerning the Cochiti Dam project and its impacts on the Pueblo." The negotiation of the Agreement resulted in many discussions involving both mutual and independent concerns. The process has identified numerous issues requiring the attention of all parties and the need for continuing dialogue. The Cochiti People feel that the Cochiti Dam has affected them in many ways, including the loss of farming and other traditional activities. The loss of farming drastically affected the Pueblo's ability to sustain traditional practices that not only ensured the Pueblo's survival, but also provided many necessary traditional values that created an intrinsic community environment. An entire generation was denied the cultural conditioning associated with these lost values. Traditional values adversely affected include losses such as the fluency of the native language for this generation, the sense of community, and their attachment to the riparian landscape. The mitigation of these effects relies on the removal of public activity at the Al Black Recreation Area and restoring the land to a more natural condition to facilitate re-instituting the beneficial use of the site and creating opportunities to regain lost tribal traditions.

In accordance with the Agreement, the easement provisions involving property immediately adjacent to the Cochiti Dam Outlet Works would be modified. Specifically, the recreation easement for the Al Black Recreation Area would be rescinded. The Corps would retain the original dam operation and maintenance easement. Public access to the site would no longer be allowed. All public-oriented facilities and other amenities that have no bearing on operation or maintenance of the Outlet Works would be removed. In addition, the site would be restored as prescribed by the Pueblo. This also includes property west of Highway 22 along the Rio Grande channel.

1.05 REGULATORY COMPLIANCE

The Corps has prepared this Environmental Assessment (EA) in compliance with all applicable Federal statutes, regulations, and Executive Orders, including, but not limited to:

National Environmental Policy Act (NEPA) of 1969, as amended (42 U.S.C. 4321 *et seq*.);
Regulations for Implementing the Procedural Provisions of NEPA (40 CFR 1500 *et seq*.);
Clean Air Act, as amended (42 U.S.C. 7609 *et seq*.);
Clean Water Act of 1972, as amended (33 U.S.C. 1251 *et seq*.);
Endangered Species Act, as amended (16 U.S.C. 1531 *et seq*.);
Federal Actions to Address Environmental Justice in Minoirty Populations and Low-Income Populations (Executive Order 12898)
Fish and Wildlife Coordination Act (16 U.S.C. 661 *et seq*.);
Farmland Protection Policy Act (P.L. 97-90);
Floodplain Management (Executive Order 11988);

Protection of Wetlands (Executive Order 11990);
National Historic Preservation Act, as amended (16 U.S.C. 470a *et seq*.);
Protection of Historic and Cultural Properties (36 CFR 800 *et seq*.);
Protection and Enhancement of the Cultural Environment (Executive Order 11593).
Native American Graves Protection and Repatriation Act of 1990 (25 U.S.C. 3001*et seq.*)
Archeological Resources Protection Act of 1979 (16 U.S.C. 470)
Environmental Justice (Executive Order 12898)
Federal Weed Act of 1974 (Public Law 93-269; U.S.C. 2801)

This EA also reflects compliance with applicable State of New Mexico regulations and standards for water and air quality, as well as regulations conserving endangered plants and animals.

SECTION 2

ALTERNATIVES AND PLANNED ACTION

All Federal agencies that assist or take part in projects that utilize public funding are mandated by NEPA to evaluate alternative courses of action. The alternatives can be a set of different locations that satisfy certain defined project criteria and may include design considerations and/or attributes that may mitigate or reduce impacts generated by a given action. In general, alternatives, including a no-action alternative, provide decision makers with an evaluation of present and future conditions with regard to implementation of an action at a given site and time, or that include particular design characteristics. Information and knowledge yielded from alternative evaluations guides the decision-making process so that project activities are in the best interest of the public and environment.

2.01 ALTERNATIVE 1 - NO ACTION

Under this alternative, there would be no changes to existing public access or to the Corps' management of the Al Black Recreation Area. The property easement granted to the Corps by the Pueblo would remain in effect. All existing recreation facilities at the site would be retained and available for public use.

2.02 ALTERNATIVE 2 -THE PLANNED ACTION

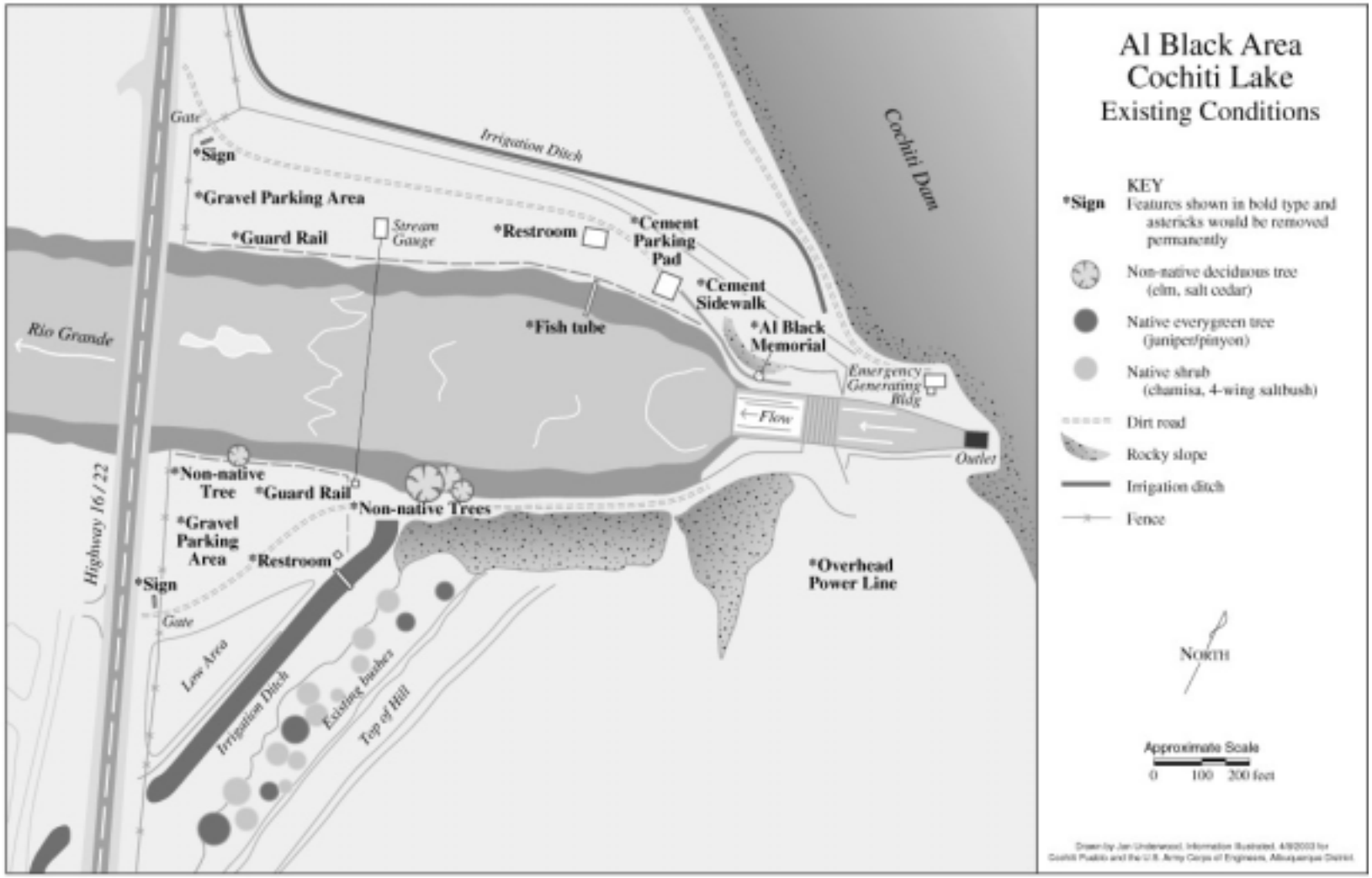
In accordance with the Agreement and the desires of the Pueblo to sustain the cultural and traditional integrity of its community, the Corps would permanently close the Al Black Recreation Area and restore the property to as natural a condition as possible. Due to the historical and cultural sensitivity of the site, the Corps restoration efforts would be accomplished in phases over a 3- to 4-year time period. The project area is limited to the existing boundaries of the Al Black Recreation Area as previously agreed to in past discussions between the Corps and the Pueblo. Following is a description of the planned activities to remove public facilities and restore the landscape to more natural conditions:

A. Easement Modification: The Al Black Recreation Area easement would be terminated and public access prohibited. The Cochiti Dam Outlet Works operation and maintenance easement granted to the Corps would remain in effect at the site. Access to the area would be limited to Pueblo representatives and Corps, Middle Rio Grande Conservancy District, and U.S. Bureau of Reclamation (BOR) operation and maintenance personnel.

B. Removal of Public facilities: There would no longer be a need for public use facilities within the existing recreation easement boundaries. All government property would be surplused following Federal guidelines. The Corps would dispose of unsalvageable materials in pre-approved or licensed commercial disposal areas or landfills. The Corps would accomplish the following site modifications of the existing features as illustrated in Figure 2:

1. All parking rails (including support poles) and traffic barriers on both sides of the river channel would be removed. Disturbed areas would be backfilled and disked.
2. All unnecessary interior fencing would be removed.
3. Both temporary and permanent restroom structures, including septic tanks, would be removed and disposed offsite. After structures are removed, the area would be landscaped and groomed consistent with the rest of the lot.
4. Non-native trees on the south bank would be removed for disposal.
5. The Al Black memorial plaque and stone would be removed and retained by the Corps.
6. All concrete padding not necessary for the operation or maintenance of the dam would be removed and disposed of properly.
7. After the public facilities have been removed, all impermeable compacted material on both north and south (of the river channel) parking lots would be disked to a depth not to exceed 6 inches to facilitate bonding of new borrow material that would be deposited in appropriate places to create slight landscape contours. All areas landscaped with borrow material would be seeded. The borrow material would add fertile soil for rehabilitation of ground cover and re-create natural landscapes. All borrow material would be obtained from a pre-approved or licensed commercial borrow area. Quantities would be determined during project design.
8. Interior signage associated with public activities would be removed. Exterior signs would be replaced with temporary signs describing the cooperative efforts of this project on behalf of the Corps and the Pueblo.
9. The access gate for the south lot would be relocated to the entrance of the existing irrigation ditch road to the south.

Figure 2: Al Black Recreation Area, Cochiti Lake, Sandoval County, NM



10. The asphalt access road to the power plant generator building would be removed. Depending on agency operation and maintenance needs, a new dirt or gravel road may be installed and maintained on or near the existing road site.

C. Proposed improvements: Once the public facilities have been removed, the following improvements at the former Al Black Recreation Area would be initiated:

1. The north and south parking lots would be filled with fertile soil from a local borrow source. Slightly sculpted hills, not to exceed six feet in height to avoid erosion, would be created and placed in the middle of each lot.
2. Upon completion of the backfilling, re-seeding efforts would focus on restoration of native vegetation communities as appropriate.
3. Soil erosion control techniques would be used throughout the site to encourage groundcover recovery and shrub community establishment for natural soil stability. Feasible techniques include seeded erosion control blankets, silt fences, wattles, and gabions, if necessary, for steeper slopes or cuts.
4. Erosion control techniques would be applied to the severely eroded hills immediately south of the outlet works.
5. All deteriorated chain-link fencing along Hwy 22 on the exterior of the site would be replaced.

It is estimated that it will cost $20,000 to remove existing facilities and $264,000 to improve/restore the area.

2.03 RELOCATION ALTERNATIVE SITES (PLANNED ACTION)

2.03.1 Introduction

In determining a feasible public recreation site alternative for the relocation of the Al Black Recreation Area, the following criteria were deemed primary considerations:

a. Location with respect to the existing recreation area.
b. Duplicating as much as possible the existing cold water fishing experience currently available to the public at Al Black.
c. Availability of real estate.
d. Accessibility of site.
e. Potential to replace the recreation benefits lost at Al Black.

2.03.2 Relocation Site Alternative 1 (The Preferred Alternative)– Establishment of a Recreational Fishing Area Downstream of Cochiti Dam on the East Side of the River Near Peña Blanca, New Mexico

Approximately three river-miles downstream from the dam, the Middle Rio Grande Conservancy District (MRGCD) owns floodplain and shoreline land on the east

side of the river at Peña Blanca (see photos in Appendix D). The acreage is bordered on the west by the river, on the north by Cochiti Pueblo, on the south by Santo Domingo Pueblo, and on the east by the river levee and the Riverside Drain. The fairly constant flowing fast current and deepwater depths would prevent pedestrian access to this acreage from the east bank.

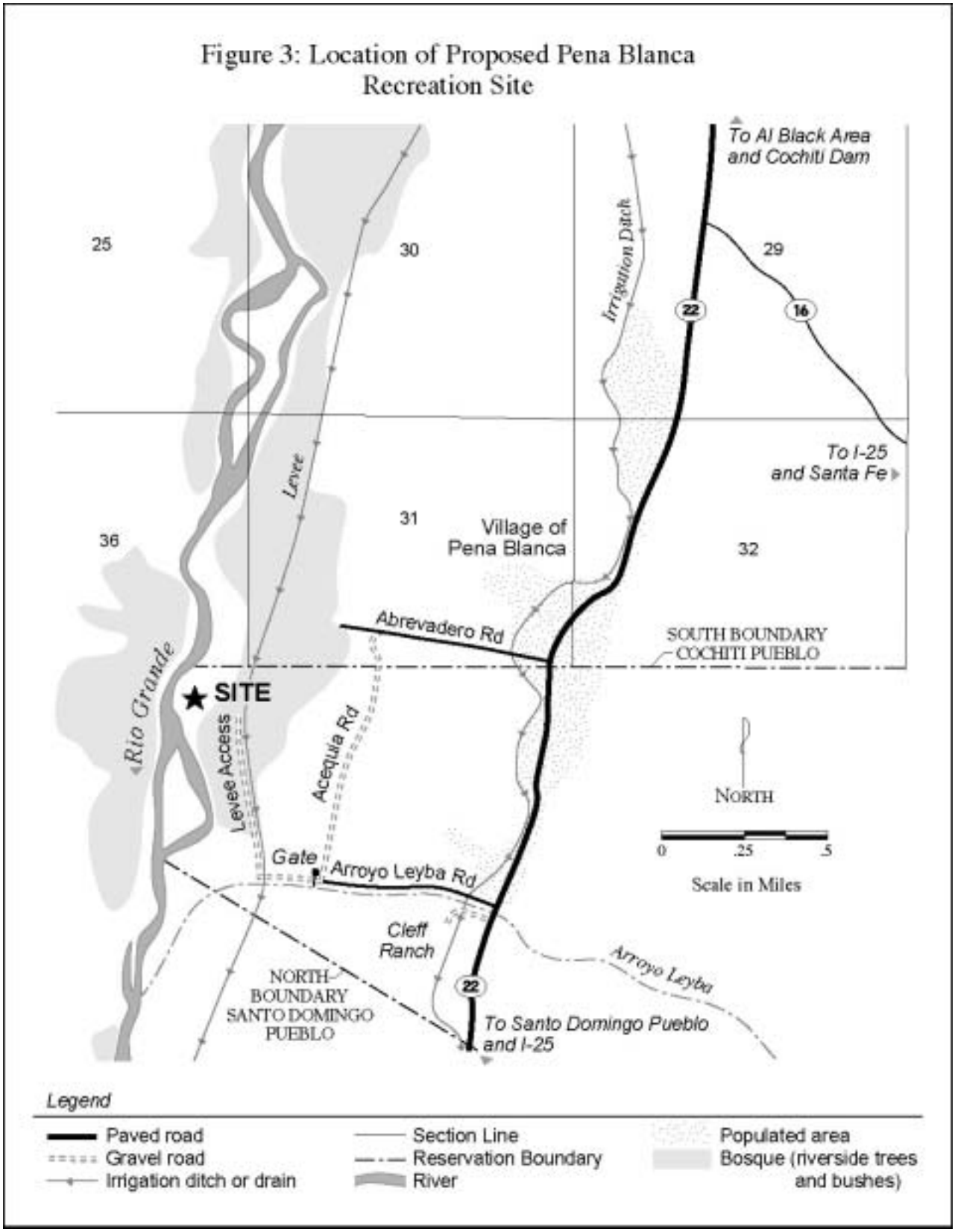
From Highway 22, the Arroyo Leyba County Road and the levee road provide access to the site (see Figure 3). Local residents have historically entered the property to fish and pursue other recreational activities. Approximately one-quarter mile west of Highway 22, MRGCD has installed a gate with lock and is assessing a permit fee and key deposit in order to control access and prevent trash dumping on the property.

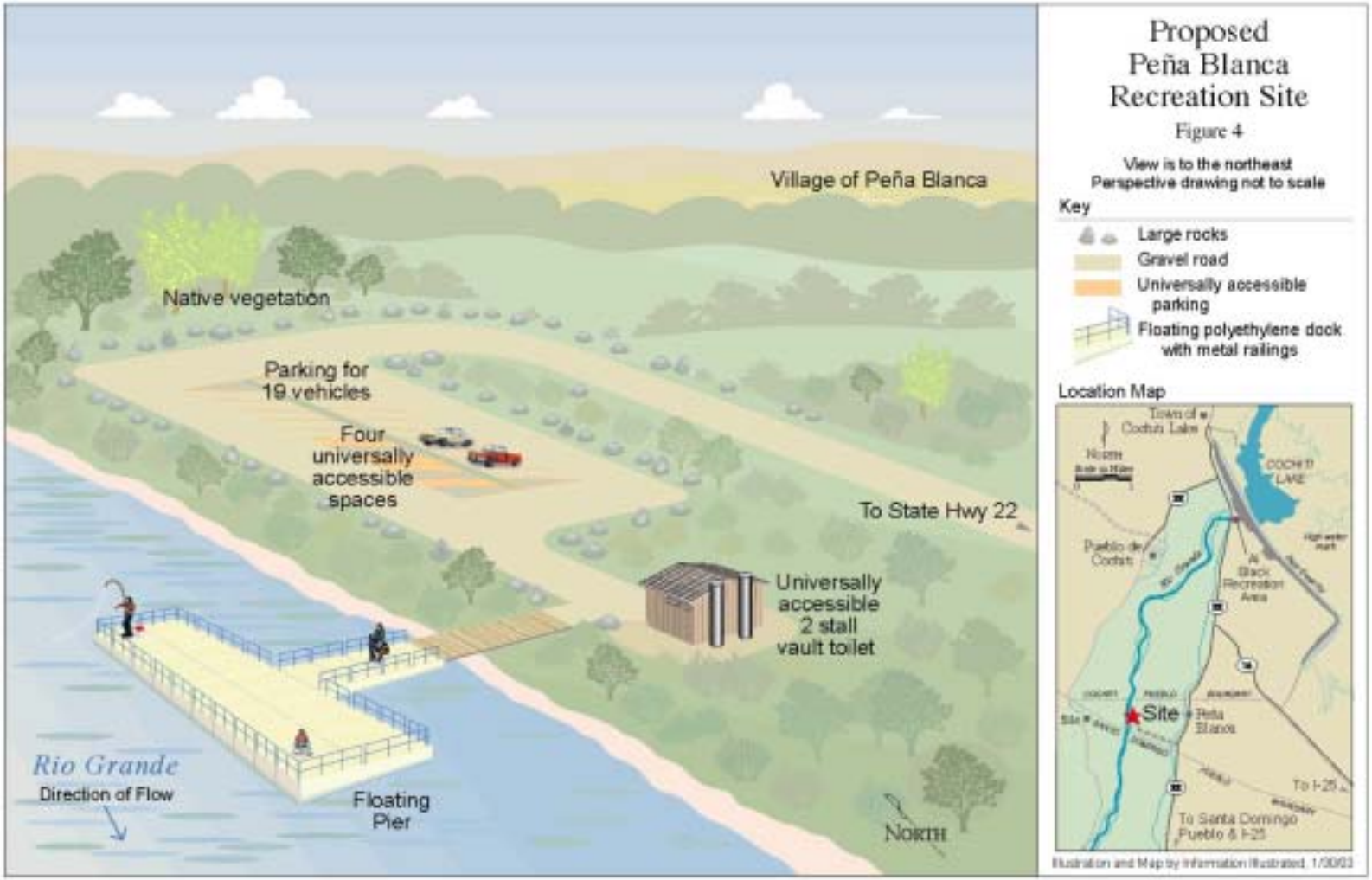
The property consists of 43 acres of undeveloped bosque; however the proposed project only includes 1.3 acres (56,000 square feet of area). As illustrated in Figure 4, proposed public facilities would include parking, vault toilets, and a universally accessible fishing pier. The parking area would contain 19 parking stalls, including four that would be universally accessible and designed with a 3-foot wide access route between the two rows of stalls for safe access to and from a vehicle. The surface of the parking area would meet accessibility standards. The total area for parking would be approximately 12,375 square feet. Pedestrian access to shoreline fishing would be gained around or through sparse understory vegetation below a predominantly cottonwood/Russian olive/saltcedar overstory. While the fishing pier is accessible to everyone, the unimproved shoreline areas offer low banks, sandbars, and deep pools below higher banks to provide other fishing opportunities along the river.

The vault toilets would include separate facilities for men and women. Features include universal accessibility, 4-inch thick concrete waste vaults, and continual air flow technology to prevent odor. The facility design would allow for ease of maintenance and minimizes vandalism.

The floating fishing pier would meet all accessibility standards with a 5-foot gangway and a 1:12 slope; textured, no-skid deck surface; and a railing design to accommodate fishers in wheelchairs. The dimensions of the pier would be approximately 45-feet long by 9-feet wide. It would be constructed of polyethylene modular units with individual flotation chambers and a flotation capacity of 4,000 pounds. Each unit is approximately 6.6 feet wide by 10 feet long and 15 inches deep. The facility design would allow for ease of maintenance and minimizes vandalism. Present day discharges

Figure 3: Location of Proposed Pena Blanca Recreation Site




Village of Peña Blanca
Native vegetation
Parking for
19 vehicles
Four
universally
accessible
spaces
To State Hwy 22
Universally
accessible
2 stall
vault toilet
Rio Grande
Direction of Flow
Floating
Pier
NORTH
Proposed
Peña Blanca
Recreation Site
Figure 4
View is to the northeast
Perspective drawing not to scale
Key
Large rocks
Gravel road
Universally accessible
parking
Floating polyethylene dock
with metal railings
Location Map
Site
Illustration and Map by Information Illustrated, 1/3003

in the river below the dam range from 300 cubic feet per second (cfs) to a maximum 7,000 cfs. The water surface elevations at the downstream Cochiti gage range from 2.1 feet at 550 cfs and 5.8 feet at 7,400 cfs. The pier would be designed to safely accommodate water elevations of approximately 4 feet.

The access road and parking lot would be constructed of permeable material installed at existing grade. Boundaries of the fishing access area would be delineated with large rocks to prevent off-road vehicle traffic. The portion of the access road that travels north along the river levee from Arroyo Leyba Road would also be delineated.

The only permanent structure would be the sealed concrete vault toilet. Due to their limited nature, size, and structural profile, it is not anticipated that the public facilities would increase flood stages in the area to levels significantly above events occurring under existing site conditions (i.e. No Action). Toilet waste would be removed on a regular schedule and prior to anticipated flood events to prevent effluent from entering floodwaters.

Placement of the access road and parking lot would avoid impacting the cottonwood overstory and entail minimal removal understory vegetation. Any plantings associated with landscaping would be limited to establishing native vegetation.

Currently, the Peña Blanca reach of the Rio Grande supports a coldwater fishery of brown trout. In a letter dated December 4, 2002 (see Appendix A) the New Mexico Division of Game and Fish (NMDGF) expressed their concern for the potential closing of the Al Black Recreation Area. However, they also noted that the proposed area at Peña Blanca might be viable as a relocation site, even though they do not consider this as a new access to fishing but as an improvement to existing access. (It should be noted that the MRGCD's lock and permit fees currently make this a limited access area.) Although unable to state that stocking would continue at the Pena Blanca site, the NMDGF feel that this reach of the river may be stocked using a schedule similar to that currently in effect at Al Black. To verify this, water quality monitoring would have to be conducted to alleviate concerns about water temperatures during the months of June, September, and October. If water quality parameters were determined to be insufficient, the NMDGF would have to identify an alternative stocking strategy within existing biological constraints.

As previously discussed, MRGCD is currently allowing fee access to the property ($35 annual permit fee and a $15 key deposit). Although they have expressed concerns about the use of the area for a public recreation facility, the Corps would address these issues in their management plan for the site (see MRGCD and Corps letters in Appendix A). The Corps anticipates resolving any of MRGCD's reservations about use of the area as a recreation site.

This alternative recreation site would satisfy all criteria associated with proximity to Al Black, presence of a coldwater recreational fishery, site availability and

accessibility. Therefore, it is the preferred alternative and would replace public recreation facilities and recreation opportunities presently available at the Al Black Recreation Area.

2.03.3 Relocation Site Alternative 2 - Establishment of a Recreation Area Within the Pueblo de Cochiti on the Rio Grande, South of the Dam

Establishing a recreation area on Pueblo property on the Rio Grande at a site located between the southern limits of the Al Black Recreation area and the southern property boundary of the Pueblo would have the potential to satisfy all the considerations for establishing an acceptable replacement public recreation facility. However, this alternative on Pueblo land would not conform to their stated purpose and need to bring the management of their lands into uses consistent with the historical and cultural nature of the area. For this reason, this alternative would be unacceptable to the Pueblo and the Corps and, therefore, was eliminated from further consideration.

2.04 OTHER RELOCATION ALTERNATIVE SITES CONSIDERED

2.04.1 – Installing a Universal Access Fishing Pier and Expanding Existing Facilities at the Cochiti Lake Recreation Area

This alternative would expand the existing public fishing opportunities at the Cochiti Lake Recreation Area. Currently, the facility contains showers, toilets, picnic areas, campgrounds, boat ramp, and other convenience recreation facilities. The area is a short (approximately 2-mile) drive north on Highway 22 from the Al Black recreation Area facilities. This alternative would supplement existing fishing and recreation opportunities on the lake including the installation of a universally accessible pier. The Corps manages the lake facility and this proposal would be acceptable to the Pueblo.

Under this plan, coldwater fishing at the Al Black Recreation Area would be replaced with “out-of-kind” warm water reservoir fishing. While appealing to many anglers, Cochiti Lake warm water recreational fishing is an entirely different experience that may not be sought after by the anglers regularly frequenting the Al Black Recreation Area. Aside from the coldwater fishery in the Rio Grande below Cochiti Dam, the nearest “in-kind” coldwater fishing opportunity from Al Black is located on rivers and streams in the Jemez Mountains. Universally accessible fishing areas are available on the Jemez River adjacent New Mexico Highway 4 approximately 25 miles to the northwest. Use of these areas would require additional driving time for most Al Black fishermen. More importantly, substituting existing coldwater fishing in exchange for the fishery at Al Black, regardless of travel time, results in a net loss in available coldwater recreation fishing for New Mexico anglers. As discussed earlier, the NMDGF is concerned about any loss of existing public fishing opportunities (Pers. Com. Hansen 2002 and letter in Appendix A).

This alternative would satisfy the criteria of location with respect to the existing facility, availability of real estate, and site accessibility. The facilities at the lake

recreation area are comparable, could be expanded to accommodate increased use, and would be immediately available for public use. However, it is anticipated that anglers preferring the coldwater fishing experience at Al Black would not pursue the warm water Cochiti Lake fishery. As such, this alternative was considered unacceptable and was eliminated from further consideration.

2.04.2 Establish a Recreational Fishing Area near Sile, New Mexico on the West Side of the Rio Grande Downstream from the Al Black Recreation Area

This alternative is downstream and within close proximity of Al Black. It is directly west across the Rio Grande from the preferred MRGCD site near Peña Blanca. The river on the east, the Pueblo de Cochiti southern property line on the north, and the Santo Domingo Pueblo northern property line on the south. West of the property, Bureau of Indian Affairs Highway 85 runs northeast to southwest through the respective pueblos. Recreation facilities similar to those described for the Pena Blanc site could be constructed adjacent the river in the relatively undisturbed forested bosque. As this is the same river reach as the preferred Pena Blanca site, the existing coldwater fishery could be supplemented with fish stocking by the New Mexico Department of Game and Fish. Adequate acreage would be available for pier and shoreline fishing.

A May 2000 search of the Sandoval County property ownership records by a Corps real estate specialist revealed that members of the Pueblo de Cochiti own most of land between the respective tribal boundaries (Pers. Com. Lopez USACE). Since it is the tribe's stated desire to limit public access on their lands, use of the property for a public recreation area was eliminated from further consideration.

2.04.3 - Establish a Recreational Fishing Area on the Rio Grande Downstream from the Santo Domingo, San Felipe, and Santa Ana Pueblos

With the exception of the Peña Blanca and Sile sites, non-tribal lands south of the dam on the Rio Grande begin just north of Bernalillo, New Mexico and are primarily located on the west riverbank within the highly developed town limits of Bernalillo and Rio Rancho. Available undeveloped land in this area would be limited and expensive. This reach of the river supports a warm water fishery as the Cochiti Dam Outlet/Rio Grande coldwater fishery ends far upstream of this reach of the river. This area is located approximately 30 miles south of Al Black and would increase travel distance and time for current users of the Al Black facility traveling from north of Cochiti dam. For these reasons, this general area was eliminated for further investigation as a feasible alternative public recreation site.

2.05 SUMMARY: THE PLANNED ACTION AND RELOCATION

Under the planned action, the Corps would close the Al Black Recreation Area at Cochiti Lake, remove all recreation facilities, and restore the site to conditions as prescribed by the Pueblo. The facility would be relocated downstream on the Rio Grande near Peña Blanca, New Mexcio. Use of the Peña Blanca property would be negotiated

with MRGCD. Details of the operation and management of the facility would be finalized by the Corps upon procurement of the site.

The proposed plan requires acquiring or leasing land not currently under Government control. This Environmental Assessment is, therefore, the decision document to support Congressional authorization and funding for this action.

SECTION 3

EXISTING ENVIRONMENTAL SETTING

3.01 PHYSICAL ENVIRONMENT

The project area (which includes the Al Black Recreation Area and MRGCD owned Rio Grande riparian land near Peña Blanca, New Mexico to the south) is located in the northern part of the Mexican Highland Section of the Basin and Range Physiographic Province (Fenneman 1931). Cochiti Dam is near the southern end of the Española Basin, which includes the Rio Grande Valley from the vicinity of the Rio Chama confluence southward to where the Rio Grande exits White Rock Canyon along the southeast slope of the Jemez Mountains. From this point southward to the Big Bend reach in Texas, the Rio Grande Valley is fairly broad with extensive floodplains and a reduced gradient.

Soils within the river valley below the dam are almost entirely alluvial in origin. Gilco and Aga loams (zero to one percent slopes) predominate in the project area and are characterized as deep, moderately well drained, and with moderate permeabilitys and moderate to high water capacities. Water erosion hazard is slight, but soil blowing can be severe. Several other loam, loamy sand, clay soils of zero to four percent slopes are also present, and all are suitable for use as irrigated cropland or pasture (USDA 1987).

3.02 CLIMATE

The climate of north-central New Mexico can be generally characterized as semi-arid continental, with mild summer and cold winter temperatures. The average precipitation for the area is approximately 10 inches per year, and about 70 percent of this moisture falls during the warmer months of the year (June, July, and August). Summer moisture is carried into the state by southerly and southeasterly air circulation from the Gulf of Mexico and is usually released in brief, often heavy thunderstorms. An average of 50 such storms occur in the area each year. Winter moisture is carried into the state by eastward-moving storms from the Pacific Ocean and is often blocked from reaching the project area by the Jemez Mountains and other mountain ranges to the north and west. Snowfall (averaging 7.4 inches annually) that does reach the project area is generally of short duration and does not accumulate.

Temperatures in the area are influenced both by elevation (approximately 5,200 feet above sea level) and the highly variable topography of north-central New Mexico.

Cold air draining from off of the Jemez Mountains is often directed into the project area through White Rock Canyon during the colder months, resulting in somewhat lower temperatures during the winter than might be expected at this elevation. The mean annual temperature is close to 50 degrees F, and usually only about 11 days per year reach 90 degrees F. Most days in November through March have freezing temperatures, but only rarely during winter does the temperature fall to zero degrees F.

Winds in the area are predominantly from the west-southwest during the spring (when strongest) and shift to the north-northwest during the rest of the year. Average wind speeds are approximately 12 miles per hour, increasing to 25 miles per hour or greater about 5 percent of the time. Annual sunshine is nearly 75 percent of the total possible and is important during the summertime in the generation of localized winds and storm systems in the project area.

3.03 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

Socioeconomic resources include population and economic activity, as reflected by personal income, employment distribution, and unemployment. Some related secondary components, such as housing availability and public services, are not considered in this analysis because the proposed action has no potential to generate measurable changes in populations that would create demand for these resources. Statistics at the county, state, and national level will be used to describe the socioeconomic context. Sandoval County serves as the Region of Influence (ROI) in which most impacts can be expected to occur, and the state and region serve as regions of comparison. Specific information for recreation in the local area and ROI are relevant and also presented.

Cochiti Lake is in Sandoval County, which is roughly 3,709 square miles, with approximately 24.2 persons per square mile. It is generally rural in character and has one minor urban center. The Town of Bernalillo and City of Rio Rancho have populations of 6,611 and 51,765, respectively, in 2000. Both are considered “bedroom communities” of the Albuquerque metropolitan area. The total population of Sandoval County in 2000 was 89,908 (USCB 2000a). Bernalillo, the county seat, is approximately 30 miles from Cochiti Dam. Major employers in the immediate geographic area reside in Rio Rancho and are listed in Table 1.

In 2000, Sandoval County had a per capita personal income (PCPI) of $22,247. This PCPI ranked 5th in the State of New Mexico, and was 101 percent of the State of New Mexico average, $21,931, and was 75% of the national average, $29,469. In 1990, the PCPI of Sandoval County was $14,404 and ranked 9th in the State of New Mexico. The average annual growth rate of PCPI over the past 10 years was 4.7 percent. The average annual growth rate for the State of New Mexico was 3.9 percent and for the nation was 4.2 percent (USDC, BEA 2002a, b).

The planning and decision-making process for actions proposed by federal agencies involves a study of other relevant environmental statutes and regulations,

Table 1 Top eight employers in the City of Rio Rancho, New Mexico.

Employer	Number of Employees
Intel	5,500
Rio Rancho Public Schools	1,092
Victoria's Secret	700
Bank of America Call Center	420
City of Rio Rancho	400
JC Penney Catalog Center	400
Sprint PCS	400
Sparton Technology	280

Source: Rio Rancho Chamber of Commerce (CoC) 2001.

including EO 12898, *Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations*, which was issued by President Clinton on February 11, 1994. The essential purpose of EO 12898 is to ensure the fair treatment and meaningful involvement of all people regardless of race, color, national origin, or income with respect to the development, implementation, and enforcement of environmental laws, regulations, and policies. Fair treatment means that no groups of people, including racial, ethnic, or socioeconomic groups, should bear a disproportionate share of the negative environmental consequences resulting from industrial, municipal, and commercial operations or the execution of federal, state, tribal and local programs and policies. Also included with environmental justice are concerns pursuant to EO 13045, *Protection of Children from Environmental Health Risks and Safety Risks.* This EO directs federal agencies to identify and assess environmental health and safety risks that may disproportionately affect children under the age of 18. These risks are defined as "…risks to health or to safety that are attributable to products or substances that the child is likely to come into contact with or ingest."

Environmental justice considerations addressed in this assessment involve both population demographics, including ethnic, racial, or national origin characteristics, and persons in poverty, including children under age 18. In order to determine whether environmental impacts affect minority or low-income populations, it is necessary to establish a basis of comparison, referred to as the "region of comparison." This area consists of the geopolitical units that include the proposed action. Most environmental effects from the proposed action, in this instance, would be expected to occur in Sandoval County, New Mexico. The demographics at the county, state, and national levels are compared in Table 2.

When compared to the national level, the population of Sandoval County has proportionately more persons of Hispanic background, with less of other minority groups, including Asian and Black. However, racial composition is similar to the state as a whole, with a higher percentage of American Indian and Alaska Native (17.2 percent compared to 10.5 percent for New Mexico). It should be noted that persons of Hispanic

Table 2. Profile of demographic characteristics, Year 2000.

Geographic Area	*Total Population*	*Race (Percent of Total Population)**						
		White	*Black or African American*	*American Indian and Alaska Native*	Asian	*Native Hawaiian and Other Pacific Islander*	*Some Other Race*	*Hispanic or Latino (of Any Race)*
U.S.	281,421,906	75.1	12.3	0.9	3.6	0.1	5.5	12.5
New Mexico	1,819,046	69.9	2.3	10.5	1.5	0.2	19.4	42
Sandoval County	89,908	68.1	2.2	17.2	1.5	0.2	14.4	29.4
Bernalillo (Town)	6,611	63.3	1.0	4.6	0.3	0.2	34.3	74.8
Rio Rancho (City)	51,765	82.0	3.4	3.4	2.1	0.3	13.1	27.7

*Percentages may add to more than 100% because individuals may report more than one race.
Source: USCB 2001a, b.

or Latino origin might be White or any other race. In addition, roughly 14.4 percent claimed to be of some other race, while only 5.5 percent did so at the national level. When compared to New Mexico, Sandoval County has a lower percentage of Hispanics. Consequently, the population of Sandoval County is not disproportionately composed of minority groups compared to the region, although there may be specific locations where this is not the case.

The percentage of the population in New Mexico living below poverty (19.3 percent) is higher than for the nation (13.3 percent). Similarly, the percent of children living below poverty in New Mexico (27.5 percent) is considerably higher than the nation (19.3 percent). Poverty conditions in Sandoval County are somewhat better than the state, with 12.9 percent below poverty and 17.7 percent of children below poverty. Therefore, Sandoval County, when compared to the state, is not disproportionately low-income (USCB 2000a, b).

3.04 LAND USES

Lands surrounding the project area are devoted to agricultural uses (cropland, irrigated and non-irrigated livestock pasture), residential use, or are unused. The Corps acquired 13,690 acres of land for the Cochiti Dam Project (see Section 1.02). Tetilla Peak, Cochiti, and Al Black Recreation Areas are within the 4,069-acre Pueblo land easement devoted to floodwater and sediment control for the Cochiti Dam Project. As previously discussed, an additional 9,621 acres of flood easement were also acquired from various entities. The Corps/Pueblo easement area also contains a permanent 1,200 surface acre reservoir pool for recreation and fish and wildlife enhancement.

Lands to the west of the dam at the town of Cochiti Lake are leased from the Pueblo by private entities and are mainly for residential and recreational uses. Properties

at the town of Peña Blanca adjacent to Pueblo de Cochiti and Santo Domingo Pueblo lands are privately owned and, in general, are dedicated to residential and agricultural uses.

Farmland that is protected from conversion or other adverse effects under provisions of the Farmland Protection Policy Act (Public Law 97-98) includes lands defined as prime or unique, or that are of statewide or local importance for the production of food, feed, fiber, forage, or oilseed crops, as determined by the appropriate state or unit of local government agency or agencies. Prime farmland soil survey units within Sandoval County include Gilco, Aga, Zian, El Rancho, Jocity, and Peralta. Aga, Gilco, and Zia soils are present below the dam. There are no prime farmlands within the Al Black Recreation Area or Peña Blanca work sites.

3.05 HYDROLOGY AND WATER QUALITY

The Rio Grande and Santa Fe River watersheds upstream from Cochiti Dam drain an area of more than 11,000 square miles in northern New Mexico and southern Colorado. The drainage basin lies between the Continental Divide and the Sangre de Cristo Mountains and includes several other tributary streams, including the Rio Chama, Rio Hondo, Red River, and Rio Pueblo de Taos. Snowmelt runoff from high elevations is the most significant contributor to stream flows in the basin. Stream slopes in these high elevations may be several hundred feet per mile, decreasing to 150 feet per mile or less in the Rio Grande Gorge, and only about 10 feet per mile in the Española Valley and White Rock Canyon. From Cochiti Dam downstream, the slope is only 4-5 feet per mile. Prior to the construction of Cochiti Dam and other flood control projects in the basin, flood flows of 10-20,000 cfs were not rare in White Rock Canyon and downstream reaches. Present-day discharges in the Rio Grande downstream from Cochiti Dam range from a typical minimum of about 300 cfs to spring runoff peaks that, through regulation, do not exceed 7,000 cfs at the Albuquerque gauge. This is the current safe channel capacity water control criterion that is defined in the Cochiti Lake Water Operations Manual (USACE 1996). This criterion is being evaluated in the Upper Rio Grande Water Operations Environmental Impact Statement that is considering changes up to 10,000 cfs at the Albuquerque gauge.

The New Mexico Water Quality Control Commission (NMWQCC 2000) has designated uses and standards for interstate and intrastate streams in New Mexico (by stream segment). Designated uses of the main stem of the Rio Grande from the Angostura Diversion Works upstream to Cochiti Dam are: irrigation, livestock watering, wildlife habitat, secondary contact, coldwater fishery, and warm water fishery. However, State water standards within the Pueblo de Cochiti do not apply. No designated uses are defined for the Santa Fe River below Cochiti Dam although this reach does provide livestock and wildlife watering. Cochiti Lake is designated for use as livestock and wildlife watering, warm water fishery, coldwater fishery, and primary contact

The Clean Water Act (CWA) provides for the protection of waters and wetlands of the United States from impacts associated with irresponsible or unregulated discharges

of dredged or fill material in aquatic habitats including wetlands, as defined under Section 404(b)(1). Structures, such as piers, are regulated under the provisions of Section 10 of the Rivers and Harbors Act of 1899 in navigable waters of the United States. Department of the Army (DA) permit authorization is required prior to construction for such activities occurring in water bodies regulated under these laws.

In the event that a Section 404 permit is needed, state water quality certification is required under Section 401 of the CWA. Enforcement of Section 401 within the Pueblo de Cochiti is the responsibility of the U.S. Environmental Protection Agency (EPA). No baseline numeric water quality standards have been established for tribal lands; however, the EPA commonly takes into consideration the standards set by neighboring governments when assessing water quality impacts.

Section 402(p) of the Clean Water Act regulates point source discharges of pollutants into waters of the United States and specifies that storm water discharges associated with construction activity be conducted under National Pollutant Discharge Elimination System (NPDES) permit guidance. Under Phase II regulations, effective March 10, 2003, storm water discharges associated with Federal projects that require a Storm Water Pollution Prevention Plan (SWPPP) include discharges from construction activities (clearing, grading, and excavation) that result in disturbance to 1 to 5 acres of land (Federal Register 1999). Phase I regulations require a SWPPP for land disturbances of 5 or more acres.

3.06 AIR QUALITY AND NOISE

Sandoval County is designated as an air quality attainment area for criteria pollutants (sulfur dioxide, particulate matter, carbon monoxide, nitrogen dioxide, lead, and ozone) as determined by National Ambient Air Quality Standards (NMED 1998). Almost all of Sandoval County is considered as Class II under the Prevention of Significant Deterioration (PSD) Program. The 23,000-acre Bandelier Wilderness on the west side of White Rock Canyon lies within 10 miles of the project area and is considered pristine for air quality (PSD Class I) and is generally protected from any increase in air contaminant levels by state regulations. Air quality in the project area is generally good to excellent due to the lack of urban industrial development. Although high winds are common in and around the project area, blowing dist is generally not a problem except during extremely dry years. Airborne particulate and carbon monoxide concentrations from wood burning in the Rio Grande Valley are occasionally high during winter months when temperature inversions and wood stove use are both more prevalent.

Noise levels in and around the Al Black Recreation Area and Peña Blanca, NM are generally low and typical of rural or moderately developed communities. Recreational use of Cochiti Lake generally does not contribute to area noise levels observed from daily normal activities.

3.07 BIOLOGICAL RESOURCES

The project area is located within the Great Basin Conifer Woodland and the Plains and Great Basin Grassland biotic communities as defined by Brown (1982). These biotic communities characterize the vegetation outside of the Rio Grande floodplain. Uplands adjacent to the river valley are vegetated by one-seed (*Juniperus virginaian* var. *scopulorum)* and Rocky Mountain junipers (*J. monosperma)*, piñon pine (*Pinus edulis)*, Apache plume (*Fulugia paradoxia)*, rabbit brush (*Chrysothamnus depressus)*, skunkbush (*Rhus tribolata* var. *tribolata)*, fourwing saltbush (*Atriplex canescens)*, snakeweed (*Gutierrezia glutinosa)*, walkingstick cholla (*Opuntia* sp.), prickly pear (*Opuntia frqagilia* var. *fragilia)*, and a variety of forbs and grasses including phlox (*Phlox* sp.*)*, groundsels (*Senecio bigelovii* var. *hallii)*, asters (*Aster* sp.*)*, grama grasses (*Bouteloua* spp.), dropseeds (*Sporobolus* spp.*)*, muhly (*Muhlenbergia torreyia*), and western wheatgrass (*Agropyron occidentale).*

Riparian vegetation from Cochiti Dam downstream is dominated by Rio Grande cottonwood (*Populus deltoides ssp. wislizenii*), intermixed with several co-dominant or understory species including Russian olive (*Eleagnus angustifolia)*, New Mexico olive (*Forresteria neonewmexicana)*, saltcedar (*Tamarix sp.)*, Goodings willow (*Salix gooddingii)*, and coyote willow (*Salix exigua* var *exigua)*`.

The acreage outside the riparian forest below Cochiti Dam is primarily in agricultural cultivation, with alfalfa the predominant crop. Prior to the construction of Cochiti Dam, the areas immediately upstream of the Pueblo de Cochiti represented the northernmost limit of uninterrupted cottonwood-dominated gallery forest in the Rio Grande floodplain of New Mexico. Upstream of this point, much of the riparian vegetation community is restricted by canyon topography (White Rock Canyon and the Rio Grande Gorge), although fragmented gallery forest is present in the Española and Rio Chama valleys.

Vegetation at the proposed Peña Blanca recreation area site is comprised of an overstory of native cottonwood, Russian olive, and saltcedar and an understory, when present, dominated by New Mexico olive. Ground cover is sparse and contains occasional patches of prickly pear cactus. The overstory canopy is densest closest to the river and along the levee. The central portion of the property contains a number of sparsely vegetated open areas. Coyote willow dominates a large cobbly/gravelly bar located just downstream of the northern property boundary. The property is honeycombed with dirt roads that weave through the understory for accessing various fishing locations on the river.

The following vertebrate animal species are known or expected to occur in the general area, but are not necessarily found at Al Black Recreation Area or the Peña Blanca site where construction would be performed.

Mammals known or likely to be present include little brown myotis (*Myotis lucifugus*), Yuma myotis (*Myotis yumanensis*), pallid bat (*Antrozous pallidus*), big free-

tailed bat (*Tadarida macrotis*), Brazilian free-tailed bat (*T. braziliensis*), desert cottontail (*Sylvilagus auduboni*) , black-tailed jackrabbit (*Lepus californicus*), rock squirrel (*Spermophilus variegatus*), Botta pocket gopher (*Thomomys bottae*), beaver (*Castor canadensis*), western harvest mouse (*Reithrodontomys megalotis*), deer mouse (*Peromyscus maniculatus*), white-footed mouse (*P. leucopus*), piñon mouse (*P. truei*), house mouse (*Mus musculus*), meadow jumping mouse (Z*apus hudsonius*), coyote (*Canis latrans*), raccoon (*Procyon lotor),* bobcat *(Felis rufus*), badger (*Taxidea taxus*), porcupine (*Erethizon dorsatum*), striped skunk (*Mephitis mephitus*), mule deer (*Ococoileus hemionus*).

Hubbard and Hubbard (1979) reported a total of 154 species of birds occurring at least seasonally at Bandelier National Monument, upstream of Cochiti Lake. Many, if not most, of the same species occur in the project areas as well. Common species include Great Blue Heron (*Ardea herodias*), Snowy Egret (*Egretta thula*), Canada Goose (*Branta canadensis*), Lesser Snow Goose (*Anser c. caerulescens*), Mallard (*Anas crecca*), Northern Shoveler (*A. clypeata*), Ring-Necked Duck (*A. collaris*), Ruddy Duck (*Oxyura jamaicensis*), Common Merganser (*Mergus merganser*), Turkey Vulture (*Cathartes aura*), Cooper's Hawk (*Accipiter cooperii*), Red-Tailed Hawk (*Buteo jamaicensis*), Swainson's Hawk (*B. swainsoni*), Golden Eagle (*Aquila chrysaetos*), American Kestrel (*Falco sparverius*), Sandhill Crane (*Grus canadensis*), American Coot (*Fulica Americana*), Killdeer (*Charadrius vociferous*), Ring-Billed Gull (*Larus pipixcan*), Mourning Dove (*Zenaida macroura*), Greater Roadrunner (*Geococcyx californianus*), Western Screech-Owl (*Otus kennecotti*), Great Horned Owl (*Bubo virginianus*), Belted Kingfisher (*Ceryle alcyon*), Northern Flicker (*Colaptes auratus*), Western Kingbird (*Tyrranus vociferans*), Barn Swallow (*Hirundo pyrrhonota*), Scrub Jay (*Aphelocoma coerulescens*), Black-billed Magpie (*Pica pica*), Common Raven (*Corvus corax*), American Crow (*C.brachyrhynchos*), Black-capped Chickadee (*Poecile atricapilla),*Bewick Wren (*Thryomanes bewickii*), American Robin (*Turdus migratorius*), Mountain Bluebird (*Sialia currucoides*), Western Meadowlark (*Sturnella neglecta*), Brown-headed Cowbird (*Molothrus ater*), Spotted Towhee (*Pipilo maculatus*), Dark Eyed Junco (*Junco hyemalis*), White-crowned Sparrow (*Zonotrichia leucohhrys*), and Song Sparrow *(Melospiza melodia).*

Amphibians and reptiles known to occur in the project areas include tiger salamander, plains spadefoot (*Sciaphiopus bombifrons*), Woodhouse toad (*Bufo woodhousei*), northern leopard frog (*Rana pipiens*), bullfrog (*R. catesbeiana*), painted turtle (*Chrysemys picta*), spiny softshell turtle (*Trionys spiniferus*), lesser earless lizard (*Holbrookia maculata*), eastern fence lizard (*Sceloporus undulates*), plateau whiptail (*Cnemidophorus velos*), checkered whiptail (*C. tesselatus*), western hognose snake (*Heterodon nascius*), coachwhip (*Masticophis flagellum*), glossy snake (*Arizona elegans*), common gartersnake (*Thamnophis sirtalis),* western hognose snake (*Heterodon nascius*), and western diamondback rattlesnake (*Crotalus atrox) (*Stebbins 1985). Plateau Ecosystems Consultants (2001) collected 14 species of fish in the Rio Grande in the reach immediately below Cochiti Dam in 2001. These species were rainbow trout (*Onchorhynchus mykiss*), brown trout (*Salmo trutta*), gizzard shad (*Corosoma cepedianum*), common carp *(Cyprinus carpio*), red shiner (*Notropis lutrensis*), longnose

dace (*Rhynichthys cataractae*), river carpsucker (*Carpoides carpio*), white sucker (*Catostomus commersoni*), Rio Grande sucker (*Pantosteus plebeius*), black bullhead (*Ictalurus melas*), bluegill (*Lepomis macrochirus*), green susnfish (*Lepomis cyanellus*), white bass (*Morone chrysops*), largemouth bass (*Micropterus salmoides*), smallmouth bass(*M. dolomieui*), white crappie (*Pomoxis annularis*), black crappie (*Pomoxis nigromaculatus*), and yellow perch (*Perca flavescens).* The Western mosquitofish (*Gambusia affinis*) occurs in the shallow secondary irrigation canals on the Pueblo farmland. Platania and Bestgen (1988) collected the following four species that were absent from the 2001 study: channel catfish (*I. punctatus*), flathead minnow (*Pimephales promelas*), Rio Grande silvery minnow (*Hybognathus amarus*), and the flathead chub (*Hybopsis gracilis*).

3.08 ENDANGERED AND PROTECTED SPECIES

Three agencies who have primary responsibility for the conservation of animal and plant species in New Mexico are the U.S. Fish and Wildlife Service (USFWS), under authority of the Endangered Species Act of 1973 (as amended); the New Mexico Department of Game and Fish (NMDGF), under the authority of the Wildlife Conservation Act of 1974; and the New Mexico Energy, Mineral and Natural Resources Department, under authority of the New Mexico Endangered Plant Species Act and Rule NO NMFRCD 91-1. Each agency maintains a list of animal and or plant species that have been classified or are candidates for classification as endangered or threatened based on present status and potential threat to future survival and recruitment. Of these species, those with potential to occur in or near the project are given in Table 3. Because the State of New Mexico has no jurisdiction on tribal lands, only those state listed species of concern capable of migrating to or from the project area are included in this listing and discussion.

Table 3: Federal and State of New Mexico species of concern that may occur in the project area.

Species	Federal Status*	State Status*
Southwestern Willow Flycatcher (*Empidonax traillii extimus*)	E	E
Rio Grande silvery minnow (*Hybognathus amarus*)	E	E
Bald Eagle (*Haliaeetus leucocephalus*)	T	T

*E - Endangered
*T - Threatened

<u>Southwestern Willow Flycatcher</u>

The project area is within the current range of the Southwestern Willow Flycatcher (*Empidonax traillii extimus*) (flycatcher) on the Rio. The Service listed the

flycatcher as endangered in February 1995 (USFWS 1995a). The flycatcher also is classified as endangered (Group I) by the State of New Mexico (NMDGF 1987).

The current range of the flycatcher includes Arizona, New Mexico, southern California, western Texas, southwestern Colorado, and southern portions of Nevada and Utah (Unitt 1987; Browning 1993). Critical habitat for the species was designated in July 1997; however, the proposed project area is not within designated critical habitat. In New Mexico, flycatchers are known to breed along the Rio Grande, Zuni, San Francisco, and Gila River drainages. Available habitat and overall numbers have declined statewide (USFWS 1997). A draft recovery plan for the flycatcher is currently available for public review.

Loss and modification of nesting habitat is the primary threat to this species (Phillips *et al.* 1964; Unitt 1987; and USFWS 1993b). Loss of habitat used during migration also threatens the flycatcher's survival. Large scale losses of southwestern wetland and cottonwood-willow riparian habitats used by the flycatcher have occurred (Phillips *et al.* 1964; Carothers 1977; Rea 1983; Johnson and Haight 1984; Howe and Knopf 1991).

The flycatcher is an obligate riparian species and nests in thickets associated with streams and other wetlands where dense growth of willow, buttonbush, boxelder, Russian olive, saltcedar, or other plants are present. Nests are frequently associated with an overstory of scattered cottonwood. Throughout the flycatcher's range, these riparian habitats are now rare, widely separated, and occur in small and/or linear patches. Flycatchers nest in thickets of trees and shrubs approximately 6 to 23 feet in height or taller, with a densely vegetated understory approximately 12 feet or more in height. Surface water or saturated soil is usually present beneath or next to occupied thickets (Phillips *et al.* 1964; Muiznieks *et al.* 1994). At some nest sites, surface water may be present early in the breeding season with only damp soil present by late June or early July (Muiznieks *et al.* 1994; Sferra *et al.* 1995). Habitats not selected for nesting include narrow (less than 30 feet wide) riparian strips, small willow patches, and stands with low stem density. Suitable habitat adjacent to high gradient streams does not appear to be used for nesting. Areas not utilized for nesting may still be used during migration.

Flycatchers begin arriving in New Mexico in late May and early June. Breeding activity begins immediately and young may fledge as soon as late June. Late nests and re-nesting attempts may not fledge young until late summer (Sogge and Tibbitts 1992; Sogge *et al.* 1993).

Occupied and potential flycatcher nesting habitat occurs within the Middle Rio Grande valley: Occupied and potential habitat is primarily composed of riparian shrubs and trees, chiefly Goodding's willow and peachleaf willow, Rio Grande cottonwood, coyote willow, and saltcedar. The nearest known breeding flycatchers from the project area occur along the Rio Grande near San Juan Pueblo and Isleta Pueblo 30 miles upstream and 55 miles downstream, respectively. In the 2000 survey, 14 territories and 9

nests were located at Isleta Pueblo, and 16 territories and 8 nests were located at San Juan Pueblo. Those areas were not surveyed in 2001 and 2002.

Rio Grande Silvery Minnow

The Rio Grande silvery minnow (*Hybognathus amarus*) was formerly one of the most widespread and abundant species in the Rio Grande basin of New Mexico, Texas, and Mexico (Bestgen and Platania 1991). At the time of it's listing as endangered, the silvery minnow was restricted to the Middle Rio Grande in New Mexico, occurring only from Cochiti Dam downstream to the headwaters of Elephant Butte Reservoir, only 5 percent of its historic range (Platania 1991). The Rio Grande silvery minnow was listed as federally endangered under the Endangered Species Act in July 1994 (USFWS 1994). The species is listed by the State of New Mexico as an endangered species, Group II. The U.S. Fish and Wildlife Service (USFWS) documented that de-watering of portions of the Rio Grande below Cochiti Dam through water regulation activities, the construction of main stream dams, the introduction of non-native competitor/predator species, and the degradation of water quality as possible causes for declines in Rio Grande silvery minnow abundance (USFWS 1993a).

Critical habitat for this species was designated in July 1999 (USFWS 1999a) and included the Rio Grande corridor from the New Mexico Highway 22 Bridge (immediately downstream from Cochiti Dam) to the railroad bridge near San Marcial, New Mexico, approximately 160 miles downstream. Constituent elements of critical habitat required to sustain the Rio Grande silvery minnow include stream morphology that supplies sufficient flowing water to provide food and cover needs for all life stages of the species; water quality to prevent water stagnation (elevated temperatures, decreased oxygen, etc.); and water quantity to prevent formation of isolated pools that restrict fish movement, foster increased predation by birds and aquatic predators, and congregate disease-causing pathogens (USFWS 199a).

In November 2000, the U.S. District Court for the District of New Mexico issued an opinion that the designation of critical habitat for the Rio Grande silvery minnow was invalid and suspended the designation pending preparation of an Environmental Impact Statement by the USFWS and the formulation of a new rule. On February 19, 2003, the final rule designated critical habitat from the Highway 22 Bridge downstream to the utility line crossing the Rio Grande, a permanent identified landmark in Socorro County, New Mexico, a distance of approximately 170 miles. This designation became effective March 31, 2003. (Although the actual wording in the Federal Register stated the critical habitat extended from “Cochiti Dam” to the utility line, by the time this document is issued in draft this wording will have been corrected.)

The Rio Grande silvery minnow is a moderately sized, stout minnow, reaching 3.5 inches in total length, which spawns in the late spring and early summer, coinciding with high spring snowmelt flows (Sublette *et al.* 1990). Spawning also may be triggered by other high flow events such as spring and summer thunderstorms. This species is a pelagic spawner, producing neutrally buoyant eggs that drift downstream with the current

(Platania 1995). As development occurs during the drift, which may last as long as a week depending on temperature and flow conditions, the larvae seek quiet waters off-channel. Platania (1995) found that eggs developed in 24 to 48 hours in a laboratory experiment. Considerable distance could be traversed by the drifting, developing eggs when taking into account the possible length of the drift (Sublette *et al.* 1990, Bestgen and Platania 1991, USFWS 1993a, Platania 1995, Platania and Altenbach 1998). Maturity for this species is reached toward the end of the first year. Most individuals of this species live one year, with only a very small percentage reaching age two. It appears that the adults die after spawning (Sublette *et al.* 1990, Bestgen and Platania 1991, USFWS 1993a).

This reproductive strategy, where the progeny are moved downstream, may partially explain the greater abundance of the species in the San Acacia reach (San Acacia Diversion Dam to Elephant Butte Reservoir), as revealed by numerous fish collections (Bestgen and Platania 1991; Platania 1993). During recent surveys in 1999, over 95 percent of the Rio Grande silvery minnows captured occurred downstream of San Acacia Dam (Platania and Dudley 1999; Smith and Jackson 2000). In the past, the young drifted downstream, developed to maturity, and proceeded back upstream to occupy available habitat. Mainstem dams now block upstream migration, thus restricting the species' redistribution. Concurrently, a portion of the reproductive effort upstream of each dam is distributed downstream by the drift. It is believed that Rio Grande silvery minnows that move into the San Acacia reach (the majority of the population) are transported by high velocities in the narrow and deep channel into Elephant Butte Reservoir, where none survive (USBR 1999).

Natural habitat for the Rio Grande silvery minnow includes stream margins, side channels, and off-channel pools where water velocities are lower than in the main channel. Areas with detritus and algal-covered substrates are preferred. The lee sides of islands and debris piles often serve as good habitat. Stream reaches dominated by straight, narrow, incised channels with rapid flows would not typically be occupied by the Rio Grande silvery minnow (Sublette *et al.* 1990; Bestgen and Platania 1991).

In the proposed project area, past actions have reduced the total habitat from historic conditions and altered habitat conditions for the Rio Grande silvery minnow. Narrowing and deepening of the channel, lack of side channels and off-channel pools, and changes in natural flow regimes have all adversely affected the Rio Grande silvery minnow and its habitat. These environmental changes have degraded spawning, nursery, feeding, resting, and refugia areas required for species survival and recovery (USFWS 1993a). Cochiti Dam acts as a fish migration barrier. Recent fish collections and habitat surveys have demonstrated that habitat below Cochiti Dam to the northern boundary of Santa Domingo Pueblo is poor for the silvery minnow (PEC 2001). The coarser substrate, deeper channel, and higher velocities that occur in the incised channel in this reach of the Rio Grande do not provide the conditions where greater numbers of Rio Grande silvery minnows are known to occur.

Bald Eagle

The Bald Eagle (*Haliaeetus leucocephalus*) is a winter resident along rivers and at reservoirs in the southwestern United States. This species was listed as Federally endangered in 1967 (32 Federal Register 4001) and again in 1978 (43 Federal Register 6233), but recently was reclassified as threatened due to breeding population increases throughout the country (USFWS 1995b). The USFWS proposed removing the Bald Eagle from the list of endangered and threatened wildlife in July 1999 (USFWS 1999b); however, final delisting of the species has not yet occurred.

In New Mexico the Bal Eagle is a winter migrant from the northern border, and southward to the Gila, lower Rio Grande, middle Pecos, and Canadian valleys. Cochiti Lake is a key habitat area that includes winter roost and a concentration area. The lake has a large number of waterfowl from November to March and fisheries supported by the reservoir and river that provide the prey base for foraging eagles. The Bald Eagle is associated with aquatic ecosystems throughout most of its range. The typical diet of bald eagles is fish, with many other types of prey sucha as waterfowl and small mammals, depending on location, time of year, and population cycles of the prey species (Federal Register 1995b). In New Mexico, these birds typically roost in groups in trees at night, usually in protected areas such as canyons (NMDGF 1988).

The general daily routine for a wintering Bald Eagle is to leave its roost at dawn for its foraging ground, feed until midmorning, perch for most of the midday, and possibly feed again in late afternoon before returning to its roost site (Hawkwatch International, Inc. 1993). Local foraging areas include the headwaters above the lake, the head of the lake in Lower White Rock Canyon, the main lake area, and the tailwaters below the dam. Both adult and juvenile birds may be present in the project areas between late November and early March.

Adults of this species are easily recognized by their white heads and tails and dark bodies. Favored prey of Bald Eagles includes fish, waterfowl, and small mammals. The bird prefer to roost and perch in large trees near water. There are potential perch sites in the vicinity of the project areas (Al Black and Peña Blanca) where large cottonwoods occur at the river's edge.

The Corps conducted aerial surveys for Bald Eagles between 1988 and 1996 during January, the month of highest abundance. During the 9 years of survey, Bald Eagles were present at the Cochiti Dam Tailwaters during all 9 years and the number of birds observed ranged from 2 to 18. Along the mainstem of the Rio Grande from the confluence of the Jemez River upstream to the Sante Fe River, the bird was also observed in every year of the survey with observations ranging from 1 to 15 individuals per year. The maximum number of Bald Eagles observed in any one year was 20 at White Rock Canyon (Table 4).

The January-February 2002 bird monitoring at Cochiti Lake recorded 5 mature and 3 immature Bald Eagles roosting and foraging along the Rio Grande river channel below the dam (Pers. Com. Skalbeck 2002).

Table 4. Bald Eagle occurrence along the Rio Grande and major reservoirs during aerial surveys conducted by the Corps of Engineers in January 1988 - 1996,

Reach or reservoir	Number of years present	Mean (SD)	Min.	Max.
Rio Grande: Jemez River to Sante Fe River	9	6.8 (4.2)	1	15
Cochiti Dam Tailwaters	8	6.5 (4.9)	2	18
Cochiti Lake	9	3.7 (5.8)	0	18
Cochiti Lake, Sante Fe Arm	7	3.4 (1.6)	1	6
White Rock Canyon	9	7.9 (5.7)	3	20

3.09 CULTURAL RESOURCES

The proposed project is within the Northern Rio Grande archaeological region. This brief cultural overview is based on the four-volume set of archaeological research at Cochiti Dam conducted in the mid-1970s, edited by Biella and Chapman (e.g., Biella and Chapman 1979). The approximately 12,000 years of cultural interaction in this area can be subdivided into broadly defined periods based on constellations of artifacts recovered archaeologically. Given the ecosystem of the Pueblo de Cochiti area and of the surrounding region, the remains associated with rather short-tem resource exploitation by hunter-gathers represent the first 10,000 years. While the earliest sites, dating between approximately 10,000 B.C. and 5,500 B.C, represent the Paleo-Indian big game hunters, no sites from this time period occur in the area of the proposed project. Most Paleo-Indian sites in the greater Albuquerque region have been recorded during survey, although some excavation occurred prior to housing construction in Rio Rancho, and one site is currently being excavated during the summer by the University of New Mexico. The range of site types identified includes tool manufacture, resource processing related to hunting, and base camps occupied for longer periods of time. Many of these sites are on high ground with unobstructed views.

The Archaic Period extends from approximately 5,500 B.C. to A.D. 400 and represents a continuation of the hunting-gathering adaptation; however, the population of animals is similar to those found today. This represents the primary difference from the preceding Paleo-Indian Period. Both large and small animals were hunted and trapped. Based on the increasing presence of manos and metates, it is clear that the processing of plants became more important later in the period. Towards the end of the Archaic, longer-term habitation sites that include shallow pit houses are found in central New Mexico. Two major changes occurred towards the end of the Archaic. Indications of maize appear in the archaeological record by about 2,000 B.C.; however, maize became

relatively more common after 1,000 B.C. Finally the bow and arrow appeared about A.D. 500 and replaced the spear as the primary weapon. Archaic-period sites were recorded during the 1970s archaeological survey of the flood pool area prior to the construction of the dam.

The Archaic Period is succeeded by the Ancestral Pueblo Period. Depending on the location within New Mexico, between three and five major phases are recognized and are based on a host of characteristics, including house forms and construction techniques, settlement patterns, pottery types, and other elements of material culture. While hunting and gathering continued, reliance on agricultural products continually increased. Pit house villages with larger communal structures indicate larger social groups living in one location for longer periods of time. Small, surface living and storage rooms with below-ground communal and religious structures augment and eventually replace the pit house villages. As populations increased, these small houses were replaced with large buildings of up to several hundred rooms made of rock and/or adobe. Not all of the rooms were necessarily occupied at once.

The Developmental Period dates between A.D. 600 and 1200 and can be subdivided into Early and Late depending on the predominance of pit house or above-ground architecture. Early in the period the associated ceramics are similar to those found throughout northern New Mexico; later in time the stylistic attributes, including paint, design, and temper, become more locally diagnostic. The Coalition Period, A.D. 1200 to 1325 marked a more intensive use of the Pajarito Plateau, north of the project location. There was a change from mineral- to carbon-painted pottery and, as suggested by the number, size, and distribution of larger permanent habitation and seasonally-specific, special-use sites, there was a marked increase in the population. The Classic Period, A.D. 1325 to 1600, spans the time of the widest settlement distribution, the largest sites, and the earliest Spanish contact, beginning with the Coronado Expedition in 1540. After several expeditions by others, the first permanent Spanish occupation in New Mexico began in 1598 near the present location of San Juan Pueblo. Glaze-painted pottery was introduced for the first time. Increasingly severe and widespread droughts and impacts from European colonizers disrupted the native populations. There was a gradual retrenchment into an aggregated settlement pattern.

The Historic Period is characterized by rapid change and acculturation between the Indians, Spanish, Mexicans, and Americans. The Period dating from about A.D. 1540 to the present can be divided into seven phases reflecting aspects of social interaction; one such scheme includes Spanish exploration, followed by Colonization, the Pueblo Revolt, Spanish and Mexican Colonial, United States Territorial, and Statehood.

Currently, there are four major linguistic groups among the Pueblo Indians of the Southwest—Zuni, Uto-Aztecan (Hopi), Tanoan, and Keres. There are seven major dialects of Keres, including the western groups of Acoma and Laguna; and the eastern groups of Santo Domingo, San Felipe, Cochiti, Zia, and Santa Ana. There are numerous opinions concerning the location of the Cochiti and Santo Domingo ancestor's prior to A.D. 1300. Based on a variety of materials recovered archaeologically, including

ceramics, many believe that their ancestors originated from the general area around Mesa Verde, and the Four Corners of New Mexico, Colorado, Arizona, and Utah. After leaving the four-Corners region, the Keresan ancestors of Cochiti and Santo Domingo may have moved through the Puerco River area and the Jemez Mountains, including the Frijoles Canyon vicinity. There is general agreement that many Keresan ancestors lived in the Galisteo Basin particularly in and around the region of turquoise deposits and San Marcos Pueblo (Akins 1993).

Archaeological Survey

No archaeological survey was conducted at the Al Black Recreation Area as the entire area was originally disturbed by the construction of the stilling basin and alignment of the river channel in the mid-1970s. Subsequently the area was impacted by the construction of the facilities that will be removed by the proposed undertaking. None of the features proposed for removal and disposal are either of sufficient age or of architectural merit to warrant any consideration under the National Historic Preservation Act. There will be no impact to the archaeological or architectural resources of the area.

A three-acre project area for the proposed Peña Blanca fishing location was intensively surveyed and an additional six acres around the location were sample surveyed by an archaeologist from the Albuquerque District on January 22, 2003. The soil consists of deep, recent, flood plain sediments. The intensive survey included the proposed parking lot, restroom, and fishing-pier access locations. In addition, a 30-meter wide band centered on the existing approximately 100-meter long two-track road was intensively surveyed after it leaves the riverside levee and wanders to the proposed fishing-area parking lot. As noted above, access to the location is by existing roads on the top of two different, intersecting, levees. In fact, the road leading west from NM Highway 22 is marked on the Santo Domingo Pueblo USGS quad map as: "Road on levee". Neither of these road-on-levee locations required a survey.

The disturbance created by the construction of the parking lot, restrooms, and walkways will cover approximately one and one-half acre within a project area of about three acres. The three acres were intensively surveyed by transects spaced about 10 m apart depending on the vegetative cover. Visibility varied from 100 to 40 percent depending on the both the standing and fallen vegetation; the overall average ground visibility was about 65 percent. The entire project is located on sediment deposited by the river in the recent historic period and this fact effectively precludes the existence of archaeological resources. That nothing of archaeological relevance was seen confirmed the expectation. This project could be located anywhere within the 43-acre MRGCD tract, and there would be no impact to archaeological resources.

3.10 WETLANDS AND FLOODPLAINS

Executive Order 11990 (Protection of Wetlands) requires the avoidance, to the extent possible, of long- and short-term adverse impacts associated with the destruction,

modification, or other disturbances of wetland habitats. No wetlands would be affected by the proposed work at the Al Black Recreation Area or Peña Blanca, New Mexico.

Executive Order 11988 (Floodplain Management) provides Federal guidance for activities within the floodplains of inland and coastal waters. Preservation of the natural values of floodplains is of critical importance to the nation and the State of New Mexico. Federal agencies are required "to ensure that its planning programs and budget requests reflect consideration of flood hazards and floodplain management." The proposed work would not contribute to or result in any additional development of the Rio Grande floodplain. As described in paragraph 2.03.2, the access road and parking lot at Peña Blanca would be constructed at existing grade of permeable material. Although the vault toilet would be an impediment to flood flows, these facilities would not raise flood stages to any level of significance.

3.11 INDIAN TRUST ASSETS

Indian Trust Assets are legal interests in property held in trust by the United States for Indian tribes or individuals. Examples of trust assets included land, minerals, hunting and fishing rights, and water rights. The United States has an Indian Trust Responsibility to protect and maintain rights reserved by or granted to Indian tribes or individuals by treaties, statues, executive orders, and rights further interpreted by the courts. This trust responsibility requires that all federal agencies take all actions reasonably necessary to protect such trust assets.

3.12 RECREATION AND AESTHETICS

The Memorandum of Understanding (MOU) dated November 1965, between the Pueblo and the Corps provided for the construction of public recreation facilities at Cochiti and Tetilla Peak Recreation Areas. Recreation facilities at these two sites were constructed in 1974.

The amended MOU, dated December 1975, provided for the construction of public access and a vault toilet at the Outlet Channel Area (Al Black). These facilities were also constructed in 1974, prior to the Amended MOU, dated 1975.

In 1989, improvements were made to the Outlet Channel Area to provide universal accessibility. New facilities included an accessible restroom, parking and access route. On October 17, 1989, the area was dedicated and named the Al Black Recreation Area. Mr. Black, a local fisherman with a disability, was instrumental in the development of universally accessible facilities at the site. On September 24, 1990, a plaque was placed at the base of the spillway honoring his efforts. The Al Black Recreation site contains the only universally accessible fishing area at Cochiti Lake.

Fishermen travel from throughout central New Mexico to fish rainbow and German brown trout in the outlet channel, which is stocked by New Mexico Department of Game and Fish (NMDGF). In the latest data available, German brown trout

fingerlings (1-3 inches) were stocked in 1986, 1987, 1989, 1992 and 1998 (the analyses for the 2000-2001 and 2001-2002 license years were in process as of March 2003). The last stocking contained 99,000 fingerlings. NMDGF has stocked the outlet channel with approximately 120,000 rainbow trout from January 1998 through January 2002, averaging 800 per month. The fish are a "catchable" size of approximately 9 to 10 inches. The rainbow trout are produced in state hatcheries. The German brown trout are surplus fish from federal hatcheries. Trout are not stocked in the reservoir because the ambient water temperature is too warm to support or sustain coldwater fish (Pers. Com. Hansen 2002).

During the 1997-1998 fishing license year, approximately 10,000 anglers fished the outlet channel. In the 1998-1999-license year, approximately 9,000 anglers fished the site. A total of 37,000 anglers fished Cochiti Lake from 1997 through 1999 (Pers. Com. Hansen 2002).

Other recreation activities within the area include sightseeing, picnicking, and wildlife viewing. Bald Eagles arrive in late fall and leave by spring. Ospreys arrive in early spring and stay through the summer. In 1998, Public Utilities of New Mexico (PNM) installed an osprey nesting platform atop a power line pole on the east side of Highway 22, just south of the outlets works. Three Ospreys fledged from this site in 1998. There were no reported fledglings in 1999 or 2000. In 2001, there was one reported fledgling with at least two fledglings reported in the spring of 2002. In New Mexico, there are currently 11 nesting Osprey pairs, only two of which are on natural cavities. The majority of nesting Osprey are found at three northern New Mexico reservoirs, Heron, El Vado and Navajo.

As illustrated by Table 5, the highest visitation occurs at the Al Black Recreation Area during the months of April through September. Overall, there is sustained public use of the area throughout the year. The Visitation Estimation and Reporting System (VERS) utilized by the Corps defines a "visit" as the entry of one person into a recreation area or site to engage in one or more recreation activities. A "visit" is a "head count" of visitors and does not measure amount of use or length of stay.

The VERS program estimates percentages of visitors participating in various activities based on a recreation use survey conducted in 1991. Visitors entering a recreation area such as Al Black would be surveyed to document the types of recreational activities that they planned to participate in during their visit. The following are the results of the types and percentages of recreational activities that visitors planned to participate in while visiting the Al Black Recreation Area:

Picnicking	2.06%	Sightseeing	55.25%
Fishing	37.86%	Swimming	4.82%

As described in Section 1.03 above, the Outlet Works area is a component of the dam and appurtenant structures and contains very little natural, aesthetic values. With the exception of the flood control levee on its eastern boundary, the proposed Pena Blanca

mitigation site is essentially a natural Rio Grande riparian area. The acreage is physically similar to natural (bosque) conditions having pleasing aesthetic values that existed prior to construction of the dam.

3.13 NOXIOUS WEEDS

The Federal Noxious Weed Act of 1974 (Public law 93-269; U.S.C. 2801) provides for the control and eradication of noxious weeds and their regulation in interstate and foreign commerce. Executive Order 13112 directs Federal agencies to prevent the introduction of invasive (exotic) species and provide for their control and to minimize the economic, ecological, and human health impacts that invasive species cause.

In addition, the State of New Mexico, under administration of the United States Department of Agriculture, designates and lists certain weed species as being noxious (Nellessen 2000). "Noxious" in this context means plants not native to New Mexico that have a negative impact on the economy or environment, and are targeted for management

Table 5. Cochiti Outlet Works recreation public day use (no camping) visits by month and year.

MONTH	**YEAR**							
	1995	1996	1997	1998	1999	2000	2001	2002
January	3,327	2,944	1,206	5,695	1,571	2,853	3,828	3183
February	3,872	4,230	3,786	7,433	1,464	5,696	4,808	5671
March	9,955	5,456	32,280	2,095	1,764	7,117	7,194	7358
April	7,468	5,192	8,560	6,536	5,626	7,322	8,211	7042
May	4,938	6,599	8,532	7,387	7,330	7,250	9,613	8183
June	7,156	5,646	10,307	10,499	7,094	6,196	8,783	8254
July	7,676	7,240	14,413	11,407	9,340	5,963	11,075	8574
August	6,309	7,512	12,556	ND*	9,330	5,838	10,023	4667
September	6,742	6,650	9,344	ND*	8,216	5,399	8,054	5871
October	4,256	5,165	5,358	6,794	3,519	6,570	4,952	6066
November	1,518	2,682	2,336	0+	3,541	5,803	5,385	4418
December	3,468	3,071	2,349	2,349	2,529	3,691	3,834	1324
Total	**66,685**	**62,387**	**111,027**	**70,337**	**61,324**	**69,698**	**85,760**	**70,611**

ND* = No Data
+ = Outlet Works closed to public for repairs
Source: USACE 2002.

or control. Class C listed weeds are common, widespread species that are fairly well established with the state. Management and suppression of Class C weeds is at the discretion of the lead agency. Class B weeds are considered common within certain regions of the state but are not widespread. Control objectives for Class B weeds are to prevent new infestations, and in areas where they are already abundant, to contain the infestation and prevent their further spread. Class A weeds have limited distributions within the state. Preventing new infestations and eliminating existing infestations is the priority for Class A weeds.

Under this law, State regulatory authority is limited to non-tribal lands. Even so, although entirely on Pueblo land, most of the area within boundaries of the Al Black Recreation Area has been covered with parking lot or landscape gravel, concrete, or rip rap, thereby greatly limiting the opportunity for establishment of noxious weeds or other vegetation.

3.14 HAZARDOUS AND TOXIC WASTE

On January 22, 2003, a representative of the Corps' Geotechnical and HTRW Branch visually inspected the proposed recreation site at Pena Blanca. The survey identified numerous small illegal dumpsites of household waste. The waste included opened steel cans, plastic soda bottles, aluminum cans, paper wastes and 1-liter motor oil bottles. The oil bottles were empty, dry, and no longer contained product or oil residue; therefore, they are not designated as a hazardous waste. A small amount of construction debris was also observed including, but not limited to, rotting wood timbers, rebar, concrete debris, asphaltic concrete debris, general lath and plaster debris, rolls of laminate flooring, and fiberglass insulation. No staining or discoloration of the ground at any of these dumpsites was observed.

Items observed that pose a potential hazardous waste disposal issue were limited to one oil filter, one car battery, and approximately three cubic yards of asphaltic concrete debris. These items pose a "de minimus" hazardous waste and can be removed separately. No samples for waste characterization were collected.

SECTION 4

FUTURE CONDITIONS WITHOUT THE PROJECT

Future conditions without project implementation would be projected to characterize "no action" and its effects. If no action were taken, the Al Black Recreation Area would remain in place. Its primary benefits of fishing, picnicking, bird and wildlife watching, and other forms of outdoor recreation compatible with the site and its facilities would continue to be available to the public. Future operations and maintenance (O&M) costs would remain constant adjusting for inflation. The Corps does not plan to upgrade or develop additional recreation facilities at the site in the near future. Expected

recreational use of the site would also remain constant with the probability of a slight increase in visitation with increases in tourism and the regional population. Therefore, there would be no change in future environmental conditions in the area without the proposed project.

The annual operating cost at Al Black Recreation Area is estimated at $30,000. This cost includes weekly cleaning and trash removal, week-day and week-end patrols by Corps Park Rangers, and bi-annual clean-out of vault toilets.

SECTION 5

FORSEEABLE ENVIRONMENTAL EFFECTS OF PLANNED ACTION

5.01 SOCIOECONOMICS AND ENVIRONMENTAL JUSTICE

The Proposed Action has been evaluated based on estimated changes to employment earnings, recreational benefits or population dynamics in the local area. If appreciable population changes could result (greater than 5 percent), then potential secondary effects on public services are considered.

Implementation of the proposed action would have negligible adverse effect on the regional economy. Material acquisition is limited to replacing the Al Black Recreation Area with the proposed action. No permanent construction-related or government positions are being created; consequently, there would be no immediate or long-term change in employment or population. No changes to regional socioeconomic patterns or trends would occur.

Under the proposed action, there would be a slight improvement in the quality of recreation experience currently enjoyed by visitors to the Al Black Recreation Area. This is attributable to the increased aesthetic quality of the planned action over the current conditions. For purposes of this analysis, it was assumed that facilities (fishing locations, parking, toilet facilities) constructed in the proposed action are similar to those currently at the Al Black Recreation Area.

The Corps uses the Unit Day Value (UDV) as one method to estimate demand for and willingness to pay for recreational facilities (USACE 2000). Five judgment factors are evaluated to determine the willingness to pay for a given recreational facility. Those factors are recreation experience, availability of opportunity, carrying capacity, accessibility, and environmental. For purposes of this analysis, the carrying capacity and accessibility criteria were assumed to be similar to existing conditions. Hence, the relocation and construction outlined in the proposed action would presumably have the most significant effects on the recreation experience, availability of opportunity, and environmental factors.

A small survey of Corps and State of New Mexico personnel was conducted to evaluate the quality of the recreation experience as it currently stands and under the

proposed action. Results indicate that the planned action has no detrimental effects on the quality of the recreation experience. In a qualitative sense, respondents indicated that the recreation experience offered by the proposed action would be of greater value due to a) increased number of recreation activities that could be undertaken under the planned action, such as bird watching and photography, and b) the more natural environment provided by the location described in the planned action.

There is no significant correlation between population increases in the local area and Region of Influence (ROI), and visitation to the Al Black Recreation Area (see Table 6). Bernalillo County's population had a greater probability of predicting visitation, but that relationship was also deemed insignificant. However, study team members believed that visitation to the Peña Blanca site could increase due to an unspecified substitution effect from other fishing areas. New Mexico Game and Fish has indicated they may continue to stock the fishing area under the Planned Action much as they do in the current condition. Any projection in future visitation can only be made in qualitative terms, but since the planned action provides a qualitatively better recreation experience for the visitor without any increase in travel time to the recreation site, visitation is not expected to diminish as a result of implementing the planned action.

To comply with EO 12898, the most recent information available on ethnicity and poverty status in the ROI have been examined and compared to state and national statistics to determine if the planned action could disproportionately affect any minority or low-income groups. If any resource impacts had been identified, an analysis of the potential for disproportionately high and adverse impacts to minority and low-income populations would be conducted, comparing the demographics of the affected area to those of the region of comparison.

Table 6. Population of Bernalillo and Sandoval Counties plus Al Black Recreation Area visitation.

	Bern. Co.	Sandoval Co.	Al Black
	Population	Population	Visitation
1994	515700	76125	81938
1995	522195	79794	66685
1996	524576	83125	62387
1997	525206	85856	111027
1998	524686	88037	70337
1999	523472	90253	61324
2000	556678	89908	69698
2001	562458	93883	85760

Source: USCB 1999, USACE visitation data.

No significant environmental impacts would result under the planned action. Therefore, there is no potential to adversely affect either the populations as a whole or any minority or low-income persons.

Effects from the substitution of one fishing facility with a qualitatively superior location are not expected to affect local employment or earnings. Therefore, no impact to persons of low-income or minority status would result. Due to the absence of schools or housing on the subject lands, no adverse impacts to children resulting from the implementation of the proposed action are expected.

5.02 LAND USES

The land comprising the Al Black Recreation Area would revert from public recreation use to exclusive tribal use by the members of the Pueblo. This would allow the Pueblo to realize their stated purpose and need of the relocation as a step towards preserving community integrity by limiting the use of this land to tribal members for cultural and traditional purposes.

The proposed project would have no affect on current uses of water for agriculture, ranching, residential, or other activities in the area. State of New Mexico designated uses and standards applied to the Rio Grande would not be affected by the proposed project. Although no designated uses have been defined for the Sante Fe River, the work would have no effect on the primary uses for livestock and wildlife watering. No prime farmlands would be affected by the proposed action.

In summary, land use at Al Black would change from public recreation use to a restored natural area used exclusively by Pueblo tribal members and operations and maintenance personnel from the Corps, MRGCD, and BOR. While this change would result in a significant effect on the public use of this environment, the effects would be offset by the proposed establishment of a public recreation facility at Peña Blanca as discussed in paragraph 5.07. Land use at the site would change from fee permit use to public recreation use. The site would be altered to provide for vehicle access and parking and a universal access public toilet and fishing pier. These changes would have no significant effect on the current use of the land at Peña Blanca.

5.03 HYDROLOGY AND WATER QUALITY

The San Juan Reservoir is the only designated navigable water body in New Mexico. There are no waters or wetlands of the Rio Grande that would be impacted by the proposed work at the Al Black Recreation Area or the Pena Blanca mitigation site. Therefore, DOA Section 404 and/or Section 10 permit authorization is not required for work associated with this project. This determination has been coordinated with the Albuquerque District Corps Regulatory Branch.

Because a Section 404 permit is not required for work at Peña Blanca, neither is state water quality certification under Section 401. However, the Corps would coordinate

with the NMED regarding work activities and schedules to allow the opportunity for monitoring water quality conditions during project construction.

Project construction would comply with the general conditions of NPDES, that is, a Notice of Intent would be filed, and a Storm Water Pollution Prevention Plan for the project would be developed and be kept on file at the construction site and becomes part of the permanent project record. The Corps would obtain the NPDES permit prior to commencement of construction activities.

5.04 AIR QUALITY AND NOISE

The construction activities associated with the planned action would be of limited scope and duration thereby having no significant effects on local environmental conditions. Temporary increases in airborne dust would be expected from motorized equipment traffic and earth moving during trench excavation. Access roads and disturbed construction areas would be watered as needed to reduce dust levels caused by motor traffic and other construction related earth disturbances. Carbon monoxide and other fossil fuel combustion engine emissions would increase temporarily but not to levels of adverse significance during construction. Localized noise levels would temporarily increase from the use of power equipment but not to a level that would adversely affect human activities or wildlife. Noise and air quality would return to pre-project ambient levels upon completion of the work at the Al Black Recreation Area and Peña Blanca.

Closure of the Al Black Recreation Area would result in a decrease in local traffic and fossil fuel emissions from automobiles and recreation vehicles. However, these factors currently do not present an air quality or noise concern. Therefore, although the reduction in vehicular traffic would result in an improvement in air quality or noise at the site, the change would not be considered significant.

It is anticipated that the increased public use at Peña Blanca from the proposed establishment of the recreation area would result in an increase in noise and associated fossil fuel emissions from vehicular traffic. The facility would accommodate private automobiles and small to mid-sized recreation vehicles. Such vehicles have relatively low fossil fuel emission levels and operation noise levels. It is not anticipated that the number of vehicles traveling to and from the recreation area would be at a level that would adversely affect ambient air quality in the immediate area. The increase in local traffic should not disrupt the generally rural and quiet nature of the surrounding area. Human noise would be muffled and buffered by the dense overstory vegetation, blocked by the river levee, and would not likely disturb area residences, the nearest of which is located at least one-quarter mile from the proposed facility. Therefore, it is anticipated that the project would have no significant long-term effects on sound and noise levels in the Peña Blanca area.

5.05 BIOLOGICAL RESOURCES

The Al Black Recreation Area has been manipulated for human use since the Cochiti Dam construction was initiated. The landscape was stripped of vegetation, graded, and replaced with graveled parking lots, comfort stations with concrete platforms, concrete access walkways, and rip rap armoring for stabilization along the stilling basin banks. The site contains no biological resources of significance. As proposed in the previously described relocation plan, the site would be restored to conditions as prescribed by the Pueblo. This work would have a positive, although not significant, effect on the biological resources of the site and surrounding area.

As described in the conceptual construction plan for the Peña Blanca recreation facilities in paragraph 2.03.2, vegetation and earth disturbance would be minimal and would not significantly impact existing terrestrial habitat. While recreational use of the area is now permitted by MRGCD through users fees, it is anticipated that human use at the site would increase with the construction of improved vehicle access, parking, fishing pier, and other public recreation facilities. Due to the limited scope of these alterations and the minimal disturbance to the existing natural landscape, these alterations would not have a significant effect on the existing biological resources at the site.

5.06 ENDANGERED AND PROTECTED SPECIES

Southwestern Willow Flycatcher

The Outlet Works Area extends from the base of the dam and continues 900 feet downstream to the Highway 22 Bridge. Within this reach of the river the riparian vegetation outside of the channel has been removed and both banks permanently armored with large riprap for stabilization. In addition, the riparian zone is not subject to overbank flooding and saturated soils are absent. The Southwestern Willow Flycatcher may be present in the general area during seasonal migration but, due to lack of vegetation at the project site, the bird would not likely be found within the limits of the Al Black Recreation Area. Although riparian vegetation is present west of the channel and south of Highway 22, this area would not be affected by the construction work. Therefore, the proposed construction at Al Black would have no effect on the flycatcher or its critical habitat.

There is no potential Southwestern Willow Flycatcher habitat at Peña Blanca due to the absence of overbank flooding resulting for the controlled releases at the dam, the absence of slow moving or backwater areas, and the narrowness of the riparian zone containing dense understory vegetation. Therefore, the proposed work would have no effect on the Southwestern Willow Flycatcher or its critical habitat.

Rio Grande Silvery Minnow

As noted in Section 3.07 above, the Rio Grande silvery minnow was absent from recent fish sampling efforts immediately below the dam (PEC 2001). The minnow

prefers low-velocity habitats with silt/sand substrate (Dudley and Platania 1997). Factors that may contribute to the minnow-absence below the dam include high stream velocity and a rock and cobble substrate, habitat components not preferred by the minnow. All proposed construction work at the Al Black Recreation Area would occur outside of the waters of the Rio Grande and upstream of the minnow's critical habitat that begins at the Highway 22 Bridge and continues downstream.

With the exception of the floating pier, all work at Peña Blanca would occur outside of the Rio Grande. The installation of the pier would not result in an adverse effect to the silvery minnow or its critical habitat as the structure would not present a blockage to spawning or migration and would result in minimal disturbance to the substrate. Overbank flooding at the site occurs rarely and subsides rapidly and would not provide adequate spawning or rearing habitat for the fish.

Standard best management practices would be employed at the Al Black and Peña Blanca construction sites to prevent disturbed soil, petrochemicals, and other unsuitable materials from entering and degrading the waters of the Rio Grande at and below the construction site. In consideration of these factors, the proposed project would have no effect on the silvery minnow or its critical habitat.

Bald Eagle

Currently, no Bald Eagle perching or roosting sites have been observed at the Al Black Recreation Area. Potential perching and roosting habitat are present just below the Highway 22 Bridge. Project construction disturbance is limited to the area above the bridge on either side of the stilling basin for the Outlet Works.

Various field visits by Corps personnel to Peña Blanca did not reveal current use of the area by the bird. This may be due to human presence for fishing and other recreational activities under MRGCD's fee permit program. It is anticipated that improving public access and recreation facilities would further increase human use and disturbance in the area. However, there is ample potential Bald Eagle habitat both up and downstream of the Peña Blanca site. Avoiding or minimizing disturbance to the dominant native overstory of cottonwood trees would protect any potential perching or roosting sites.

To minimize the potential for disturbing Bald Eagles utilizing adjacent habitat during construction, efforts will be made to schedule all work outside of the Bald Eagle high use months of December, January, and February. If a Bald Eagle is present within 0.5 mile upstream or downstream of the construction sites in the morning before project activity starts, or following breaks in project activity, the contractor would be required to suspend all activity until the bird leaves of its own volition, or a Corps biologist, in consultation with the USFWS, determines that the potential for harassment is minimal. However, if an eagle arrives during construction activities, or if an eagle is beyond 0.5 mile of the site, construction would not be interrupted. If Bald Eagles are found consistently in the immediate project areas during the construction period, the Corps

would contact the USFWS to determine whether formal consultation under the Endangered Species Act is necessary

Implementation of these measures would preserve undisturbed Bald Eagle use of foraging and perching habitat in the riparian area below the dam at the Al Black Recreation Area and at Peña Blanca if construction occurs while the bird is present. For these reasons, the proposed work at the Al Black Recreation Area would have no effect on the Bald Eagle. However, the proposed work at Peña Blanca may effect, but is not likely to adversely affect the Bald Eagle or its habitat. Concurrence on these determinations and the recommendations to protect the species would be sought from the USFWS prior to beginning construction.

5.07 RECREATION AND AESTHETICS

Closing the Al Black Recreation Area would result in the significant loss of existing public recreational opportunities including fishing, picnicking and wildlife viewing. NMDGF stocks trout at the outlet works of Abiquiu Dam as well as the Jemez River, the Rio Grande near Velarde, and the ditches in Bernalillo (only during the winter months). The loss of public accessibility to the regionally unique cold-water fishery at Al Black would be significant as anglers would have to travel between 32 to 81 miles to participate in a similar cold-water fishery experience. The nearest universally accessible coldwater fishing is at the US Forest Service facilities on the Jemez River. Anglers would have to travel between 50 to 77 miles to participate in a similar universally accessible fishing experience.

Restoring the Al Black Recreation area to a more natural and sustainable condition would have a positive affect on the aesthetics of the site. The planting of native vegetation and removal of non-native species would return the site to a more natural setting, serving as a buffer against the dam and the appurtenant structures at the outlet works.

The adverse effects to public recreation resulting from the closure of Al Black would be offset at the proposed Pena Blanca public recreation area. As discussed in Sections 2.03.1 and 2.03.2 above, this would mitigate for the loss of public recreation resources by replacing the lost facilities at an easily accessible location that would reduce driving time and mileage for many users; provide, with the assistance of the NMDGF, a similar or acceptable coldwater recreational fishery opportunity; and provide an aesthetically pleasing recreation site within the natural riparian area (bosque) of the Rio Grande. It is anticipated that recreational use at Peña Blanca would be similar to current uses at Al Black including fishing, picnicking, bird and wildlife viewing, as well as sightseeing. The majority of current users at the Al Black would be expected to utilize the Peña Blanca facility. Specifically, those who presently utilize the cold-water fishery at Al Black would take advantage of a similarly stocked fishery at Peña Blanca. Traffic through the town of Peña Blanca would remain essentially the same as Highway 22 as well as Highway 16 are major access route to recreation areas (including Al Black) at Cochiti Lake. Because the Peña Blanca site is currently an MRGCD managed fee permit

recreation area, only a small increase in traffic is expected to occur on Arroyo Leyba Road. As previously described, construction of the recreation facilities would have only minor impacts on the existing, natural features of the site. Therefore, the relocation of the Al Black Recreation Area to the Pena Blanca recreation area would not significantly effect public recreation and aesthetics.

The cost to construct the Peña Blanca recreation facilities has been estimated at $338,000. Annual operating and maintenance costs for this project are estimated to be $30,000 annually.

5.08 NOXIOUS WEEDS

Because the entire recreation area has been graveled for parking and concreted for access and the shoreline armored with large rock, the only vegetation growing at the Al Black Recreation Area consists of a few non-native tree species along the upper limits of the south bank of the river. As discussed in Section 2.02 B.4 (Proposed Plan) above, all non-native plant species would be removed for disposal. The site restoration plan described in paragraph 2.02.C.3 prescribes planting of native cottonwood and riparian vegetation communities. Contract specifications would require that all vehicles be washed to remove non-native plant seeds before the equipment is allowed on-site. Additionally, any “tall pot” plants for revegetation would be root watered to prevent the unintended watering of noxious or exotic weeds

As identified in paragraph 3.07 above, two Class C species, saltcedar and Russian olive, are present in the Peña Blanca bosque. Some of these trees may be removed to construct recreation facilities and to open the understory within the boundaries of the recreation area. Future area-wide removal of these noxious plants may be possible under a New Mexico State funded program to restore the Rio Grande bosque through intensive removal of these species. As noted in Section 2.03.2, any landscape plantings would be limited to establishing native vegetation compatible with that found in the riparian area in this reach of the river. Such plantings would be installed similar using procedures as described for the restoration of the Al Black area. In consideration of this information, the proposed work complies with the provisions of federal Executive Order 13112 and the requirements of the State of New Mexico regulations addressing noxious weeds.

5.09 HAZARDOUS AND TOXIC WASTE

The household and construction solid waste should be removed and disposed in the proper general and/or construction and demolition landfill prior to the start of any construction activity.

SECTION 6

CUMULATIVE IMPACTS

NEPA defines cumulative effects as "…the impact on the environment which results from the incremental impact of the action when added to other past, present, and reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions." Any environmental impacts associated with the Cochiti Dam and Lake would have been realized within the last 38 years since commencement of its construction in 1965. These past impacts have stabilized and can be considered the baselines against which impacts of the proposed project have been compared. The establishment of the proposed Pena Blanca recreation area would mitigate the significant adverse impacts on recreation resources associated with the closure of the Al Black Recreation Area.

Currently, the Corps, Bureau of Reclamation (BOR), and the New Mexico Interstate Stream Commission (NMISC) are signatories of the Memorandum of Agreement (MOA) to conduct the Upper Rio Grande Water Operations Review and prepare a Programmatic Water Operations Environmental Impact Statement (Water Operations EIS). That study is being prepared by the parties in accordance with NEPA and will present alternatives for analyzing water operations at federally-operated facilities in the Upper Rio Grande Basin and will evaluate the environmental, economic, and social effects of these alternatives. It is not anticipated that the proposed project would add cumulatively to the environmental effects of any of the water operations alternatives that may be considered and/or adopted by the water operations review.

In summary, there would be no impact on the environment resulting from the incremental impact of the proposed action when added to any other past, present, or reasonably foreseeable future actions of other Federal and non-federal agencies.

SECTION 7

CONCLUSIONS

The relocation of the Al Black Recreation Area by the Albuquerque District Corps of Engineers would honor their agreement with the Pueblo de Cochiti to continue a process of resolving the Pueblo's concerns associated with the Cochiti Dam Project. It is the expressed desire of the Pueblo to restore cultural traditions lost as a result of dam operation impacts that have adversely affected practices that not only insured the survival of the Pueblo but also created an intrinsic community environment. In addition, the Corps would restore the abandoned recreation area to a natural state consistent with the environment that existed prior to the construction of the dam.

This action would result in a loss of public recreation resources, including a unique coldwater fishing opportunity realized by the reservoir discharge at the dam outlet works. To mitigate for this significant adverse impact to the human environment, the

Corps proposes to establish a public recreation area downstream of the dam on the Rio Grande at Pena Blanca. Realization of this project would not significantly affect any other physical, biological, or cultural resource at or in the surrounding area of the proposed action. Therefore the proposed project would have no significant impact on the human environment. Table 7 summarizes estimated immediate and future costs to close the Al Black Recreation Area and establish the Peña Blanca Recreation Area.

Table 7: Estimated costs to close the Al Black Recreation Area and open the Peña Blanca Recreation Area

Al Black Recreation Area:		
Relocation and removal of facilities	$ 20,000	
Site restoration	264,000	
		$284,000
Peña Blanca Recreation Area:		
Construction of facilities (road and parking lot, Floating dock, vault toilet, landscaping boulders, signage, trash receptacles, etc.)		338,000
Total Estimated Project Cost		**$622,000**

Source: Pers.Comm. Piirto 2003

SECTION 8

PREPARATION, CONSULTATION AND COORDINATION

8.01 PREPARERS

Cynthia Piirto - Outdoor Recreation Planner/Project Manager
Ernest Jahnke – Biologist
John Schelberg - Archaeologist
Robert Browning – Economist
Cecilia Horner – Environmental Engineer
Al Lopez – Real Estate Specialist

8.02 GENERAL CONSULTATION AND COORDINATION

Agencies and other entities contacted formally or informally in preparation of this EA include:

The Pueblo de Cochiti
Middle Rio Grande Conservancy District
Natural Resources Conservation Service

New Mexico Department of Game and Fish
New Mexico Environmental Department
New Mexico Interstate Stream Commission
New Mexico State Historic Preservation Officer
County of Sandoval
Santo Domingo Pueblo
U.S. Advisory Council on Historic Preservation
U.S. Bureau of Indian Affairs
U.S. Bureau of Reclamation
U.S. Fish and Wildlife Service

SECTION 9

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Skalbeck, Kathy. 2002. Park Ranger, U.S. Army Corps of Engineers Cochiti Lake Project. Personal communication, February-March 2002.

Lopez, Al. 2003. Real Estate Specialist, U.S. Army Corps of Engineers, Real Estate Section, Albuquerque, New Mexico. Personal communication, March 2003.

APPENDIX A

BIOLOGICAL COORDINATION

November 7, 2002

Mr. Larry G. Bell, Director
New Mexico Department of Game
And Fish
Post Office box 25112
Santa Fe, New Mexico 25112

Dear Mr. Bell:

At the request of the Cochiti Pueblo, the Albuquerque District Corps of Engineers (Corps) is proposing to close the Al Black Recreation Area at Cochiti Dam in Sandoval County, New Mexico. In compliance with the National Environmental Policy Act (NEPA), the Corps is preparing an Environmental Assessment and Finding of No Significant Impact (EA/FONSI). To compensate for the loss of public recreation associated with this action, property on the Rio Grande at Pena Blanca, New Mexico is being investigated for availability and suitability for a replacement public recreation area. Establishment of an in-kind facility at this location would be an important step in satisfying NEPA requirements.

The New Mexico Department of Game and Fish (NMDGF) currently stocks rainbow trout at Al Black. Discussions with Mr. Richard Hansen of your fisheries staff indicate that your agency may have an interest in continuing the stocking program at Pena Blanca upon relocation of Al Black. In the Corps' effort to establish an in-kind replacement recreation facility, the continuation of your stocking program would be an important component in achieving that goal. Furthermore, a statement in the EA describing your agency's willingness to continue the stocking program would assist in arriving at a FONSI determination. Your approval to make such a statement would be greatly appreciated.

To summarize, please advise if the NMDGF would continue stocking rainbow trout at the Corps proposed Pena Blanca recreation site upon relocation of the Al Black facility. Mr. Ernest Jahnke of my staff will supply any additional information you may need or respond to any questions you may have. He can be contacted at telephone (505) 342-3416.

Sincerely,

Julie A. Hall, Chief
Environmental Resources Branch

Copy furnished:

Mr. Mike Sloane
New Mexico Department of
Game and Fish
Post Office Box 25112
Santa Fe, New Mexico 87504

CESPA-OD/Carey

GOVERNOR
Gary E. Johnson

DIRECTOR AND SECRETARY
TO THE COMMISSION
Larry G. Bell

STATE OF NEW MEXICO

DEPARTMENT OF GAME & FISH

One Wildlife Way
P.O. Box 25112
Santa Fe, NM 87504

Visit our Web Site home page at www.gmfsh.state.nm.us
For basic information or to order free publications: 1-800-862-9310

STATE GAME COMMISSION

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Tamara Hurt
Deming, NM

Jim Weaver
Causey, NM

Ray Westall
Loco Hills, NM

December 4, 2002

Ms. Julie A. Hall, Chief
Environmental Resources Branch
Albuquerque District, U.S.A. Corps of Engineers
4101 Jefferson Plaza, NE
Albuquerque, New Mexico 87109

Dear Ms. Hall,

The potential closing of the Al Black Recreation Area below Cochiti Lake concerns our agency. This fishery is located near significant population centers and provides consistent recreational opportunity during this time of drought. Angling opportunities have become increasingly restricted statewide, and the Department does not feel the citizens of New Mexico can afford to lose another fishing access. It is important that all alternatives addressed in your Environmental Assessment include provisions for development of an alternative fishery.

Development of the Pena Blanca access may serve as a viable mitigation for closure of the Al Black access. It should be noted that we would not consider this as development of a new access, but as improvement of an existing access. At this time we feel the Pena Blanca site may be stocked using a similar schedule as is currently in effect at the Al Black Access. Additional monitoring of water quality parameters would be required before I could state definitively that this site would support the current stocking schedule. Specifically we have concerns regarding water temperature during the June, September, and October stocking dates.

I can not at this time state that stocking would continue at the Pena Blanca site. Our staff will have to deem water quality parameters sufficient for continuation of current stocking strategies. If water quality parameters were insufficient, an alternative stocking strategy would have to be identified. We can agree to participate in developing this fishery within existing biological constraints. I request that you continue to involve my staff in the planning process. You may contact Richard Hansen (476-8055) of our Fisheries Division and Rick Castell (841-8881), our Northwest Area Fisheries Manager, to assist with this process.

Sincerely,

Larry G. Bell, Director

Cc Mike Sloane, Fisheries Management
Luke Shelby, Northwest Area Operations

November 7, 2002

Mr. Subhas Shah
Middle Rio Grande Conservancy District
Post Office Box 581
Albuquerque, New Mexico 87103-0581

Dear Mr. Shah:

At the request of Cochiti Pueblo, the Albuquerque District Corps of Engineers (Corps) is proposing to close the Al Black Recreation Area below Cochiti Dam on the Rio Grande in Sandoval County, New Mexico. Last spring you met with representatives of the Corps to determine the availability of Middle Rio Grande Conservancy property located on the Rio Grande at Pena Blanca, New Mexico. Based on that discussion, the Corps is investigating the use of this land to construct a new public recreation area to replace the Al Black facility.

With regards to the current status of the Pena Blanca property, Mr. Sterling Grogan of your office has advised that ownership tenure of some of the area is currently under dispute. Additionally, a government survey will be completed to confirm the limits of the property lines with respect to the Cochiti and Santa Domingo Pueblos. Furthermore, MRGCD is requiring individuals to purchase a $35 property access and use permit and is also assessing a $15 refundable fee for a gate key to the Pena Blanca land.

The Corps is in the process of preparing an Environmental Assessment/Finding of No Significant Impact (EA/FONSI) for the proposed Al Black relocation in compliance with the National Environmental Policy Act. Establishing a replacement recreation area is a key component to arriving at a FONSI. In anticipation of leasing the Pena Blanca property for this purpose, the Corps requests MRGCD's permission to describe the Pena Blanca property in the EA and include a proposed site design of the recreation facilities.

Your written concurrence with this request will be greatly appreciated. If you have questions, please contact Mr. Ernest Jahnke, Biologist, at telephone (505) 342-3416.

Sincerely,

Julie A. Hall, Chief
Environmental Resources Branch

Bcf:

CESPA-OD/Carey

December 20, 2002

Ms. Julie A. Hall, Chief
Environmental Resources Branch
U.S. Army Corps of Engineers
4101 Jefferson Place NE
Albuquerque, NM 87109

MIDDLE RIO GRANDE CONSERVANCY DISTRICT

Re: Your letter of November 7, 2002 regarding proposed Peña Blanca recreation area

Dear Ms. Hall:

The Middle Rio Grande Conservancy District (MRGCD) is the owner of a tract of land in the riparian zone ("bosque") at Peña Blanca, New Mexico, where the Corps of Engineers is considering locating a public recreation area to replace the closed Al Black Recreation Area at Cochiti Dam. Following discussions among our respective staffs, MRGCD is pleased to cooperate with the Corps of Engineers in evaluations of the feasibility of this proposal. This evaluation should, at a minimum, include detailed consideration of the following issues:

MRGCD feels very strongly that, for a number of reasons including those outlined below, the Peña Blanca site is not suitable for a public recreation area of the type envision by the Corps. Therefore, MRGCD urges the Corps to look for an alternate site.

1. Due to past problems of illegal dumping of trash and vandalism, access to the bosque at Peña Blanca is now controlled by MRGCD with a locked gate to prevent problems experienced in the past. A permit for motor vehicle entrance to the bosque is available from the MRGCD office at Peña Blanca for $35.00 per year; a $15.00 refundable key deposit is also required. MRGCD believes that, considering the proximity of homes to the area, some access controls similar to those now in place would have to remain in place even if the Corps is able to develop the site for recreation.

2. The proposed site is close to occupied residences. Therefore, the Corps should, as soon as possible, initiate discussions with adjacent property owners to resolve issues of public access, parking, noise, vandalism, and other matters of concern already expressed to MRGCD about the pending proposal.

3. Maintenance of a public recreation area is costly and burdensome, particularly with regard to questions of liability. MRGCD cannot be responsible for liability in a public recreation area. and has neither the budget, the staff, nor the legal mandate to manage a recreation area of the type apparently envisioned by the Corps. Therefore, provisions for liability, as well as for perpetual maintenance and supervision, must be considered in the Corps' evaluation of this proposal.

4. Construction of any permanent facilities, including parking, must take into consideration the prospect of the Corps eventually releasing flows of 10,000 cfs or more from Cochiti Dam, as envisioned in the URGWOPS/URGWOM process.

If you have any questions, please call me.

Sincerely,

Subhas K. Shah
Chief Engineer / CEO

P.O. Box 581
87103-0581
1931 Second St. SW
Albuquerque, NM
87102-4515
505·247·0234
Fax # 505·243·7308

March 31, 2003

Operations Division
Technical Support Branch

Mr. Subhas Shah
Middle Rio Grande Conservancy District
Post Office Box 581
Albuquerque, New Mexico 87103-0581

Dear Mr. Shah:

Thank you for your December 20, 2002 letter concerning the Middle Rio Grande Conservancy District's (MRGCD) tract of land in the riparian zone ("bosque") at Pena Blanca, New Mexico. As explained in our letter dated November 7, 2002, the Albuquerque District U.S. Army Corps of Engineers (Corps) has identified the property as a potential location for a public recreation site to replace the loss of public facilities and recreation opportunities associated with the proposed closing of the Al Black Recreation Area at the Cochiti Dam Outlet Works.

In response to your expressed concerns, the following information is offered for your consideration:

1. The preliminary alternatives analysis associated with the Environmental Assessment being prepared in compliance with the National Environmental Policy Act (NEPA) indicates that the Pena Blanca site is acceptable for the establishment of public recreation facilities. Furthermore, the water temperatures in this reach of the Rio Grande appear to be suitable to support stocking of rainbow trout to replace the existing program managed by the New Mexico Department of Game and Fish at the Al Black Recreation Area. We were unable to locate any other suitable alternate sites.

2. The Corps, or a sponsor, would restrict access to the recreation site and surrounding area with a gate that would be locked after operating hours (i.e. sunset to sunrise). This would minimize or eliminate problems associated with vandalism, trash, or noise.

3. As required by NEPA, copies of the draft Environmental Assessment will be sent to all adjacent property owners for comment and resolution of expressed concerns. Furthermore, as part of the public review, the Corps is planning to hold a public meeting to explain the plans and provide another forum for public input on the proposal.

4. The Corps, or a sponsor, will assume liability and provide for construction, management, maintenance, and ongoing funding of the recreation area.

5. The design of any permanent facilities will consider effects of over bank flows that may affect the site.

Thank you for your comments and cooperation on this proposal. If you have any other questions or concerns on these matters please contact Cynthia Piirto at 342-3277.

Sincerely,

C. Susan Shampine,
Chief Operations Division

CF: CESPA-OD/Carey

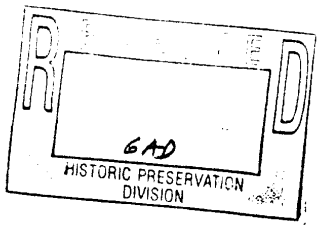
APPENDIX B

CULTURAL RESOURCES COORDINATION

DEPARTMENT OF THE ARMY
ALBUQUERQUE DISTRICT, CORPS OF ENGINEERS
4101 JEFFERSON PLAZA, NE
ALBUQUERQUE, NEW MEXICO 87109-3435
FAX (505) 342-3199

Reply to Attention of:

March 14, 2003



Engineering and Construction Division
Environmental Resources Branch

Ms. Katherine Slick
State Historic Preservation Officer
New Mexico State Historic Preservation Bureau
228 East Palace Avenue, Room 320
Santa Fe, New Mexico 87501

067378

Dear Ms. Slick:

In keeping with the provisions of 36 CRF 800, the U.S. Army Corps of Engineers (Corps), Albuquerque District, is seeking your concurrence in our determination of No Historic Properties Affected as a result of the proposed closing of the Al Black Recreation Area at the Cochiti Dam Outlet Works, Sandoval County, New Mexico, and the proposed construction of a substitute fishing area on the Rio Grande just south of Peña Blanca. Details, locations, and illustrations are included in the attached letter report; an Environmental Assessment is being prepared. Closing the Al Black Recreation Area is considered a vital component in a community-wide restoration project of the Pueblo de Cochiti. It is their long-held belief that the current use of the location is inconsistent with the historical and cultural nature of that area.

All public-oriented facilities and other amenities that have no bearing on the operation or maintenance of the Outlet Works would be removed from the Al Black area; essentially this means concrete, gravel, metal barriers, and toilets. The recreation area covers approximately eight acres, and none of it was surveyed for archaeological resources as it is completely developed. All of the facilities were constructed after the mid-1970s, and they are neither of sufficient age nor architectural merit to warrant further consideration.

Existing levees provide access to the proposed substitute fishing location south of Peña Blanca. The actual location is within the existing riverside levee on sediments deposited in the historic period by the Rio Grande. An inventory survey of the area not on the existing levees was conducted. The inventory survey included three acres (1.2 HA) surrounding the proposed project location and 1.5 acres (0.6 HA) required for the access road between the parking lot and the riverside levee. A sample survey of an additional six acres (2.4 HA) surrounding the proposed project location was also conducted. With

the exception of a stunningly diverse array of modern trash, no relevant cultural material exists.

The Al Black Recreation Area is located on Pueblo de Cochiti land; the Corps held a Recreation Easement that was modified on November 8, 2001. The modification rescinded all activity except for operation and maintenance of the outlet works. The proposed substitute fishing area near Peña Blanca is owned by the Middle Rio Grande Conservancy District, and the Corps will enter into an easement with them.

No archaeological sites, architectural resources, or traditional cultural properties exist within either location. The proposed undertaking will have no effect on the archaeological or architectural resources of New Mexico. As noted, we are seeking you concurrence of our determination of No Historic Properties Affected.

Thank you for your attention to this matter. If you have any questions or require additional information, please contact Dr. John D. Schelberg, Archaeologist, at (505) 342-3359.

Sincerely,

John D. Schelberg
for Julie A. Hall
Chief, Environmental Resources Branch

DATE 4/3/03 I Concur* Suzanne Duncan
for Katherine Slick, NEW MEXICO STATE HISTORIC PRESERVATION OFFICER

* As long as the newspaper vending machines are less than 50 years old.

Enclosure

Copy furnished: (w/o enclosure)

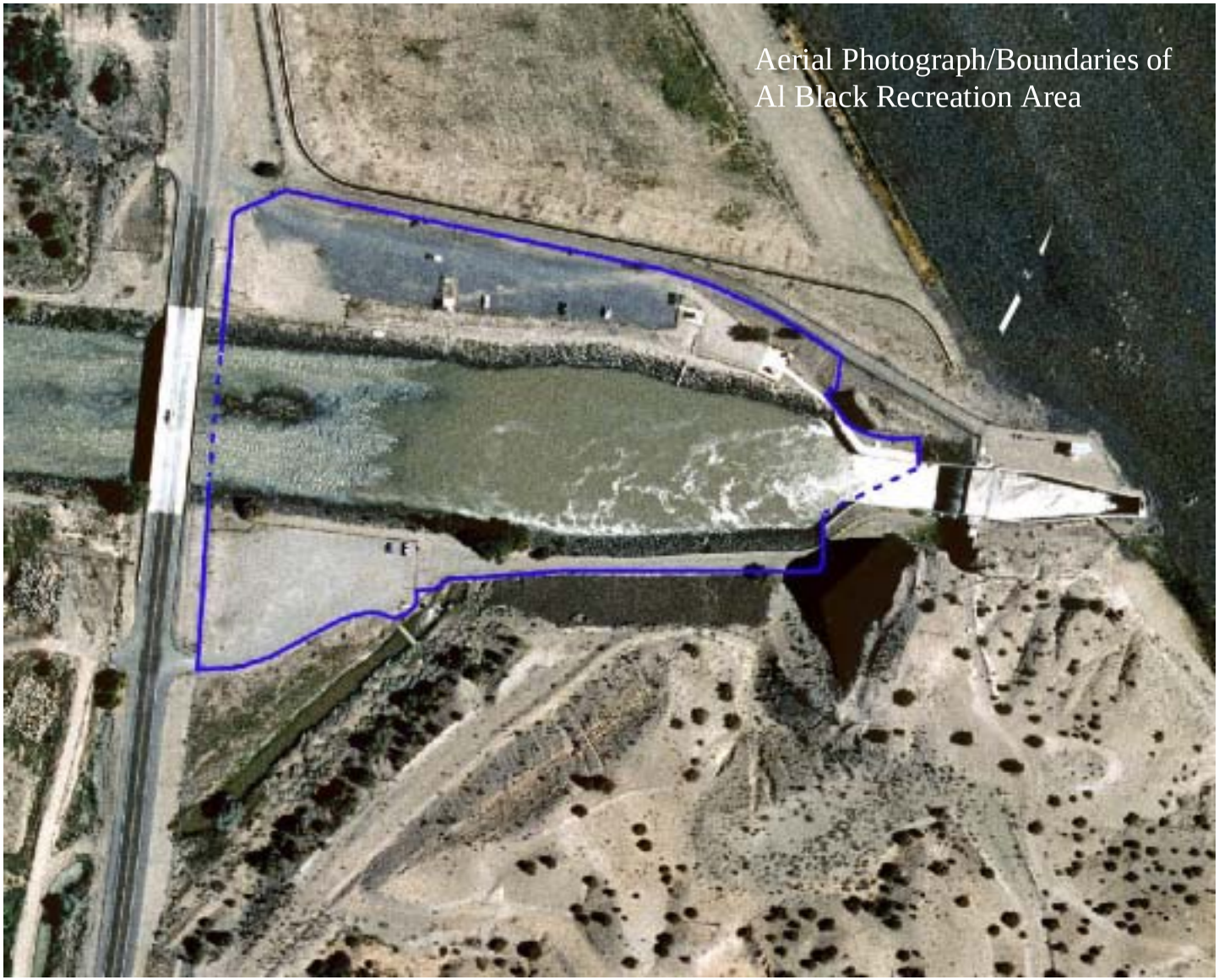
Mr. Don Klima
Advisory Council on Historic Preservation
Office of Planning and Review
12136 W. Bayaud Ave., #330
Lakewood, Colorado 80228-2115

APPENDIX C

PUBLIC REVIEW COMMENTS

APPENDIX D

PHOTOGRAPHS


Aerial Photograph/Boundaries of
Al Black Recreation Area

AL BLACK RECREATION AREA
CHOCHTI DAM
SANDOVAL COUNTY, NM

Photo 1: Outlet Works, universal fishing access, Al Black Memorial Plaque

Photo 2: North shoreline looking east to Outlet Works.

Photo 3: Parking lot, vault toilet, universal access to shoreline fishing

AL BLACK RECREATION AREA
CHOCHTI DAM
SANDOVAL COUNTY, NM

Photo 4: Looking west to Highway 22 from Outlet Works

Photo 5: South shoreline and parking area

Photo 6: Main parking lot on north shoreline

CLOSURE OF AL BLACK RECRATION AREA
PROPOSED RIO GRANDE MITIGATION SITE
PENA BLANCA, NM

CLOSURE OF AL BLACK RECRATION AREA
PROPOSED RIO GRANDE MITIGATION SITE
PENA BLANCA, NM